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DIVISION OF ECONOMIC JUSTICE
ANTITRUST BUREAU

December 17, 2019

By ECF Filing & Hand Delivery

Hon. Victor Marrero
United States District Judge
500 Pearl Street
New York, NY 10007-1312

Re: *State of New York, et al. v. Deutsche Telekom, et al.*, 1:19-cv-05434-VM(RWL)
Plaintiff States' Letter Motion to Admit Defendants' DT's Workshop Documents

Dear Judge Marrero,

Defendants are attempting to exclude certain documents produced by Deutsche Telekom ("DT") and/or T-Mobile (the "Workshop Documents"), on the basis that the documents purportedly contain McKinsey consultant statements that cannot be attributed to them. Exh. A (PX 339).¹ On day two of the trial, the Court preliminarily sustained an objection from the bench concerning one of the Workshop Documents during the testimony of Mr. Langheim. Exh. B (trial transcript) at 310:2-313:16; 315:3-316:3; Exh. C (PX 329).² At the time, the Court ruled against admissibility on the basis that "there's no indication that the client controlled the development of the content." Exh. B at 315:18-19.

Plaintiff States respectfully submit that the trial testimony of T-Mobile executive Peter Ewens would have laid the necessary foundation for these documents. Because Defendants have chosen to drop Mr. Ewens as a trial witness, Plaintiff States write instead to provide the Court with the attached documents and testimony in order to lay that foundation. The documentary record surrounding the drafting of these materials, together with deposition testimony from two of Defendants' executives, Mr. Ewens of T-Mobile and Hannes Wittig of DT, demonstrates that these documents were prepared by and completely controlled by DT, and that the contents were fully embraced by and adopted by DT, to the point that a slide from them was adapted for use in several draft iterations of a September 2018 board presentation.

¹ In accordance with the Court's Trial Practices VIII. regarding exhibits, Plaintiff States submit only the pages of Exhibits A C, E, and H that are relevant at trial and for this motion. Plaintiff States attest that they are familiar with the full contents of each of these documents, that they possess and will maintain a copy of each entire document until the Court's final disposition, and that the excerpts of these exhibits are authentic copies of the relevant portions of the documents.

² Exhibit C contains privilege redactions. Initially, DT and TMUS redacted each of these documents for privilege; after being challenged, they withdrew their privilege assertions, but did not unredact every iteration of these documents in their productions.

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This evidentiary record is sufficient to lay a foundation and establish that these documents are exempted from the definition of hearsay under Rule 801.

Background

The Workshop Documents were created in connection with two workshops held in Germany in December 2015. (See Ewens Deposition transcript, attached as Exhibit D hereto, at 47:7-16). Documents show that those workshops were scheduled by Mr. Langheim. Exh. E (PX 802), p. 3. and that Mr. Langheim hired the consulting firm McKinsey to facilitate the discussions. Exh. F (PX 796). The Workshop Documents prominently display DT's logo, and do not display McKinsey's logo. The Workshop Documents list Mr. Langheim and Mr. Ewens as participants (although Mr. Langheim disputes how much of the workshops he actually attended), and Mr. Ewens emailed John Legeré on December 3, the day of the first workshop, to report that one of Langheim's ideas "is that if we can't get 4-3 consolidation the industry is headed for commoditization and DT should limit their exposure in the US." Exh. F (PX 796)

The fact that the Workshop Documents were created by DT with input from T-Mobile is apparent from evidence and testimony found elsewhere in the record. In a November 14 email before the first workshop, DT employee Steffen Stern describes at length DT's substantive preparations for and content of the meetings, before noting that McKinsey was merely "supporting on the topic." Exh. E (PX 802), p. 2. Mr. Stern then follows up in the same email chain with a November 29, 2015 email sent solely between DT and TMUS employees anticipating a conference call, to attach "a current working draft", "[i]n case we decide to jump into the workshop document for next week." *Id.*, p.1. In addition, a December 7, 2015 email sent between the dates of the two workshops between only Mr. Stern and Mr. Ewens shows Mr. Stern proposing, as next steps, that "we start to create a few slides" and "we align with you starting ca. mid of this week to jointly bring the document to a good shape for next week's workshop." Exh. G (PX 800), p. 2. The bottom line is that while McKinsey appeared to have some facilitating role for the meetings themselves, it is apparent that DT and TMO employees created, managed, and controlled the content of the Workshop Documents.

At his deposition in this matter, Mr. Ewens gave conflicting testimony, first stating that "to my recollection, those materials were prepared by McKinsey for DT," (See Ewens Deposition transcript, Exh. D, at 44:11-16) but then confirming that "[t]his was created by Deutsche Telekom," (*Id.* at 48:13-18), and referring to the Workshop Documents as being prepared by DT or as being DT documents another nine times.³ Mr. Ewens further testified that Mr. Stern asked him to participate and assist in preparations for the workshop, including telephone interviews in advance of the workshop, (*Id.* at 46:2-47:16), and that T-Mobile "provide[d] information [reflected in the Workshop Documents] that was responsive to DT's questions that they had in advance of the first workshop." (*Id.* at 82:21-83:7). Mr. Ewens also attributed directly to DT the ideas and theories conveyed in these materials, e.g. "what it meant to me was a DT idea that we shouldn't follow Sprint into price wars." *Id.* at 97:13-20.

³ See Ex. D at: (1) 58:15-23; (2) 59:1-10; (3) 59:24-60:1; (4) 61:23-62:2; (5) 64:14-18; (6) 89:10-12; (7) 89:18-21; (8) 95:22; and (9) 99:12-13.

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Finally, it is clear from other materials that DT considered the material to be DT work product. Several draft iterations of DT board presentation documents from September 2018 contain portions of the Workshop Materials, including an updated and substantially identical version of a slide from one of the Workshop Documents. Compare Exh. A, PX 339 p. 16 (“Today, the US Telco Market is More Attractive than European Portfolio Markets”) with Exh. H, PX 386, p.25 (“The US Telco Market Remains More Attractive than European Portfolio Markets”). When shown these slides in the 2015 and 2018 documents, Mr. Wittig testified that “it seems some of these pages were apparently, let’s say, used as frameworks in future – to structure future discussion.” See Exh. I, Wittig Deposition transcript at 135:18-133:25).

Argument

A statement of a party opponent is by definition “not hearsay,” so long as any one of five enumerated conditions is met. Fed. R. Evid. 801(d)(2)(A)-(E). For such documents, there is no need to invoke or satisfy Rule 803’s hearsay exceptions because the document is not hearsay. Here, Plaintiff States satisfy two separate conditions establishing that the Workshop Documents are non-hearsay party opponent statements.

First, these documents were “made by the party in an individual or representative capacity” under Rule 801(d)(2)(A). As noted above, the evidence from the discovery phase of this case showed that the exhibit is a “DT document”, made with input from DT and/or T-Mobile personnel, that DT led the workshops at which they were presented, that they were edited and sent by a DT executive to Mr. Ewens.

“Rule 901 provides that the requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims. Rule 901 does not erect a particularly high hurdle, and that hurdle may be cleared by circumstantial evidence.” *United States v. Tin Yat Chin*, 371 F.3d 31, 37 (2d Cir. 2004) (internal citations and quotation marks omitted). “[A]ll doubts at a bench trial should be resolved in favor of admissibility.” *Commerce Funding Corp. v. Comprehensive Habilitation Servs.*, No. 01 Civ. 3796 (PKL), 2004 WL 1970144, *5 (S.D.N.Y. Sept. 32, 2004) (citation and internal quotation omitted). Moreover, “the proponent of the evidence is not required to rule out all possibilities inconsistent with authenticity, or to prove beyond any doubt that the evidence is what it purports to be.” *United States v. Dhinsa*, 243 F.3d 635, 658 (2d Cir. 2001) (citations and quotes omitted). Where there has been a *prima facie* showing, the opponent’s evidence to the contrary goes to credibility, not admissibility. *Mendez v. Int’l Food House Inc.*, No. 13 Civ. 2651 (JPO), 2014 WL 4276418, *1 (S.D.N.Y. Aug. 28, 2014).

Second, the relevant statements in the document are ones “the party manifested that it adopted or believed to be true” under Rule 801(d)(2)(B). *Schering Corp. v. Pfizer Inc.*, 189 F.3d 218, 238-39 (2d Cir. 1999) (noting that the Advisory Committee “recommends ‘generous treatment of this avenue to admissibility’” and holding that a survey designed and commissioned by a company qualified under 801(d)(2)(B)). As shown by the documents and Mr. Wittig’s testimony, at least some of the Workshop Documents were used as frameworks for future discussion within DT, including in the fall of 2018, after the merger was announced.

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For these reasons, the Workshop Documents, including the last version of the slide deck (PX 339) and related materials (PX 329, 800, 802), are not objectionable hearsay, and Plaintiff States have established a foundation for their admittance. Defendants are free to present their contrary arguments, if they choose, but only as to the weight or credibility of the evidence. There is no basis to preclude them altogether.

Respectfully submitted,



Amber Wessels-Yen
Assistant Attorney General

The Clerk of Court is directed to enter into the public record of this action the letter above submitted to the Court by	
<u>plaintiffs</u>	
SO ORDERED.	
<u>12-20-19</u>	<u>[Signature]</u>
DATE	VICTOR MARRERO, U.S.D.J.

DTAG - DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL

Consolidated contents

17.12.2015

As per workshop
discussions



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DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL



Context

DT has 2 large portfolio elements besides Germany and UK: TMUS and DTEU

- TMUS delivered strong performance over past 2 years¹ and drives DT's growth
- EU portfolio has been struggling² and recovery to stable business is uncertain

In consequence, TMUS gained more importance within DT (revenues and EBITDA) while the EU portfolio has lost in relevance

However, stability of TMUS business model in long-run unsure given its sub-scale position, competitive environment, and potential market changes

¹ +20% revenue from Q2/13 to Q2/15, +34% total customers from Q2/13 to Q2/15
² -8% revenue from Q2/13 to Q2/15
Source: DTAG



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Objective

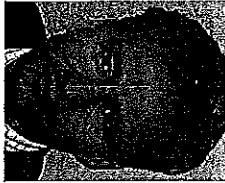
Create a deeper understanding of differences in US vs. DTEU portfolio market environment, structure and attractiveness

Identify major trends for the US that can disrupt current telco business models

Develop potential market "end-game" archetypes for the US

Outline options for TMUS to address key challenges in respective "end-game" archetypes (i.e., defining a winning position)

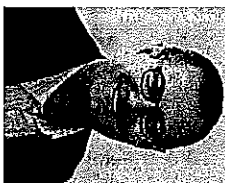
WORKSHOP PARTICIPANTS AT A GLANCE



Thorsten Langheim
Head of Strategy &
M&A DTAG

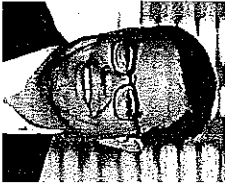


Peter Ewens
EVP Corporate Strategy
T-Mobile US



Roland Doll
VP European Affairs
DTAG
(WS I only)

DTAG



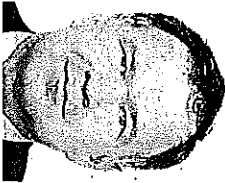
Matthias Budde
SVP Group Strategy &
Transformation DTAG



Steffen Stern
VP Portfolio Strategy
DTAG



Dr. Volker Stapper
VP Competition Law
DTAG
(WS II only)



Peter Bisson
Director
(WS I and
1st half of WS II)



Ewan Duncan
Director

McKinsey



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Source: Team analysis

EXTENSIVE EXPERT INTERVIEWS CONDUCTED TO UNDERSTAND MARKET DYNAMICS



Endre Holen

Macro trend perspective on US market



Satya Rao

Adjacencies and future business models



Brendan Gaffey

Macro trend perspective on US market



Joy Chen

Adjacencies and future business models



Stagg Newman

Regulatory expert (former CTO of FCC)



Ewan Duncan

Macro trend perspective on US market



Martin Wtulich

Spectrum scarcity, fixed to mobile trend



Tomas Calleja Mediano

Macro trend perspective on EU



Lars Engel Nielsen

Macro trend perspective for EU, FMC deep dive



Markus Meukel

Expert for eSIM and future business models



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TODAY, THE US TELCO MARKET IS MORE ATTRACTIVE THAN EUROPEAN PORTFOLIO MARKETS

US



DTEU Portfolio (excl. Germany and UK)



- ① More favorable macroeconomic environment

- ~ 42 TEUR GDP/capita 2015, growing 3% p.a. 2012-20
- 323mn population 2015, growing 1% p.a. 2012-20
- 82% urban population 2015

- ~ 17 TEUR GDP/capita 2015, growing 3% p.a. 2012-20
- 127mn population 2015, growing 0% p.a. 2012-20
- 67% urban population 2015



- ② Larger market with more attractive growth prospects

- ~ 397bn USD telco service revenues¹ in 2015 that are stagnating (i.e., zero growth till 2020)
- ~ 197bn USD video revenues² in 2015, with 3.1% growth p.a. till 2012-2020
- 3.3% telco and video spend as percentage of GDP³ 2015, declining -3% p.a. 2012-20

- ~ 37bn EUR telco service revenues¹ 2015, declining -3% p.a. 2012-20
- ~ 9,3bn USD video revenues² in 2015, with 3.0% growth p.a. till 2012-2020
- 2.1% telco and video spend as percentage of GDP³ 2015, declining -5% p.a. 2012-20



- ③ Market with limited competition and different structure

- Limited fixed broadband overbuild
- No nationwide fixed broadband players
- Small role of MVNOs

- Fixed broadband overbuild more common
- Typically strong nationwide incumbents
- Significant MVNO market shares in Western Europe



- ④ More friendly regulatory environment fostering investments⁴

- Regulator with infrastructure focus
- Reliable and investment friendly spectrum awards
- Stable political environment

- Regulator with competition and consumer welfare focus
- Unreliable and CAPEX harming spectrum awards
- Political uncertainty in certain CEE markets



- ⑤ Customers show higher spend for telco services

- 36 EUR mobile market ARPU⁵ Q2 2015
- 71 EUR fixed market ARPU⁵ Q2 2015

- 13 EUR weighted mobile market ARPU⁵ Q2 2015
- 31 EUR weighted fixed market ARPU⁵ Q2 2015

¹ Fixed and mobile service revenues
² Video (excl. HR, SK, MK, ME, AL for DTEU) includes PayTV, physical home video, OTT and TV advertising
³ Revenues (Video, wireline, mobile)/GDP
⁴ Impact of Net Neutrality policies on investment friendliness yet to be seen
⁵ Compared to currently ~17 k USD net adjusted disposable household income for selected DTEU portfolio countries (average for HU, CZ, SK) vs. ~41k USD in US households
Source: Team Analysis, Analysis Watson, GMR, OECD



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Details in appendix

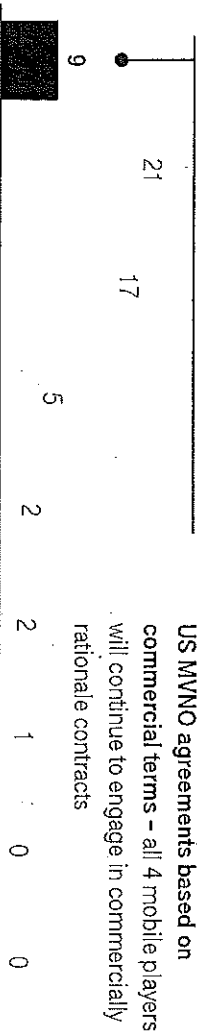
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1 NEW MOBILE ENTRANTS WILL NOT BECOME RELEVANT PLAYERS

Trend factials – excerpt

MVNO subscriber market share
%, 2014

TRACFONE Lycamobile ultra mobile



MVNOs currently with 9% market share¹ in the US telco market (vs. 15%+ in selected Western European countries)

US MVNO agreements based on commercial terms – all 4 mobile players will continue to engage in commercially rationale contracts

Regulation won't support access seeker business models as the FCC values infrastructure investments over competition.

- Expert interview

High degree of speculation in press regarding cable MVNOs – but they will generally not be a force

- Expert interview

Telco is a nationwide scale game. Without regulatory and telco support it is almost impossible that new mobile entrants will be able to disrupt the industry.

- Expert interview

European regulation likely to continue favorable regulation for access seeker business models

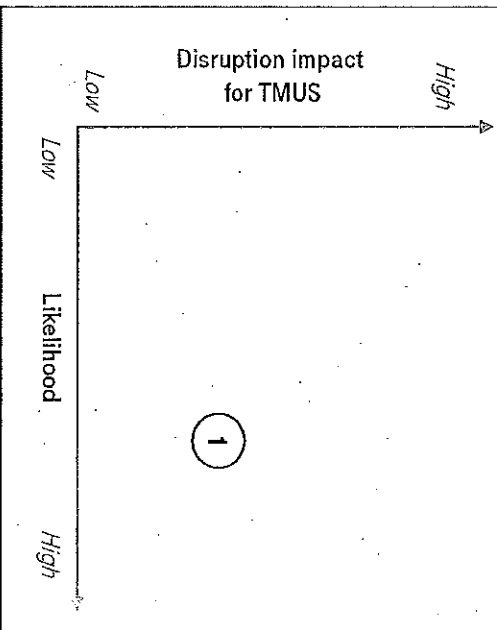
¹ Google/Just starting
Source: Team Analysis, Expert interviews, OVUM

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“So What” for TMUS

Trend can be disregarded to define a winning position for TMUS

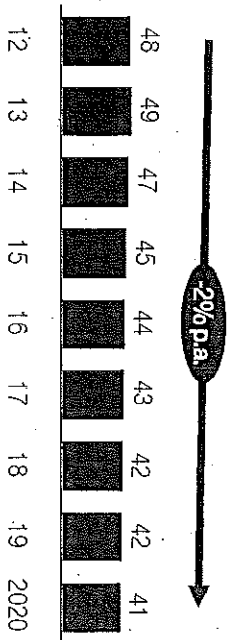
- Continuation of status quo bears no disruption potential for TMUS
- Emergence of MVNO entrants unlikely – however, if they would emerge it bears a disruption potential for TMUS



9 US ARPUS WILL REMAIN ON MUCH HIGHER LEVEL THAN IN EU PORTFOLIO COUNTRIES

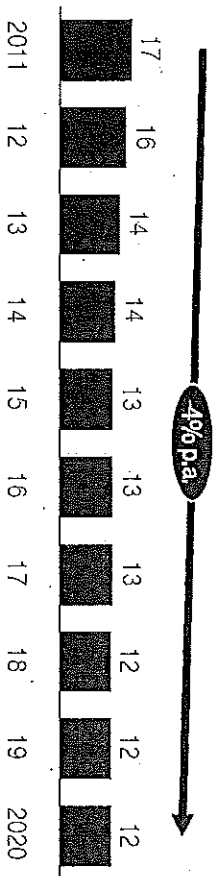
Trend factials – excerpt

US Mobile service ARPUs,
USD/month



- Underlying driver for much higher US ARPUs is operator friendly US regulation that is expected to continue and lack of price sensitivity among consumers²
- MVNO deals and MNO pricing will remain rationale
- Despite slight decline in ARPU – ARPUs will remain at much higher level than in DTEU portfolio countries

DTEU portfolio mobile service ARPUs²,
EUR/month



Future mobile ARPUs expected to stabilize at lower levels in DTEU portfolio countries

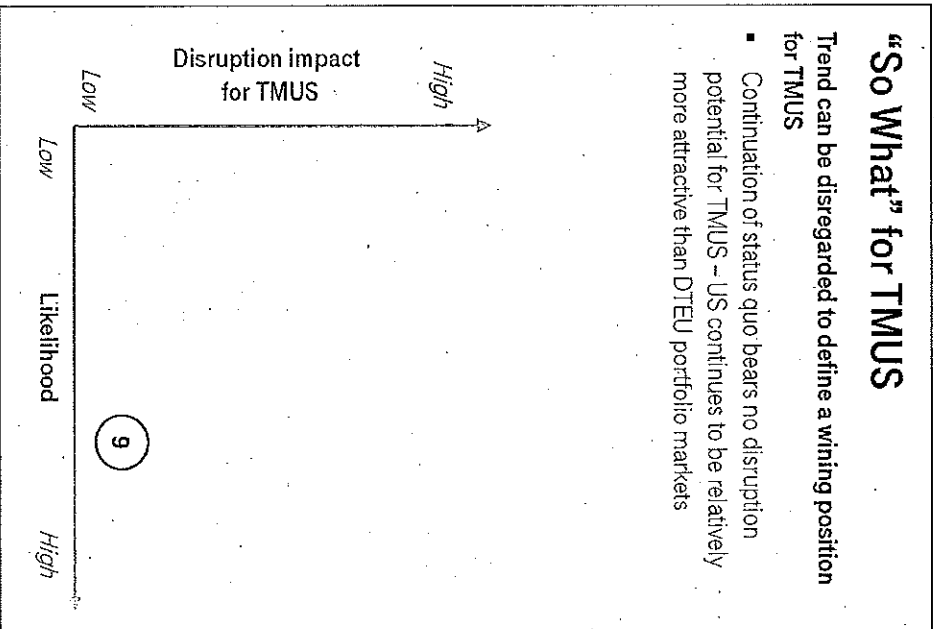
¹ Expert opinion that US consumers care more about bundles and features vs. low price offers ² Weighted average based on the service revenues per country
Source: Team Analysis

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10 MOBILE/MOBILE AND FMC CONSOLIDATION COULD CHANGE TELCO MARKET STRUCTURE

Trend factials – excerpt

- Mobile
 - TMUS + Sprint merger regarded as natural strategic move by all experts
 - However, regulator unlikely to allow emergence of 3-player mobile market
 - Antitrust policy changing slowly as no direct political influence possible, any changes only likely in mid/long-term via changes in key personnel
 - Lobbying / media campaigns could help to influence decision
 - Consolidation also unlikely under new Democratic administration and only slight improvements vs. today expected under Republican government
 - Dish's massive spectrum could lead to mid-term spectrum deal
- Fixed
 - Cable players under limited consolidation pressure, since they are winning broadband market share from traditional telcos
 - No FMC consolidation focus due to limited geographic footprint of individual cable players (no country wide FMC possible) and given prohibition of previous cable mergers
 - Many experts eventually expect a Verizon Comcast merger
 - However, "ego issue" of several large market players hinders consolidation (e.g. VZ, Comcast do not want to give up control, Cox Comm. "not for sale")
- Video/ content
 - Further consolidation of video services seen as likely (e.g. content player + telco), long term success of integrated business models needs to be proven
 - Telcos will not end up as content owners and aggregation role difficult due to very fragmented content distribution rights

Source: Team analysis, reports, expert interviews



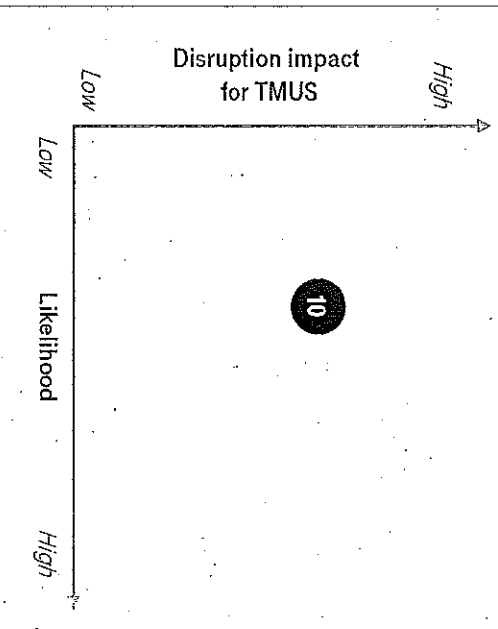
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- "So What" for TMUS**
- Trend is a relevant wild card – with clear disruption potential for TMUS
- Sprint merger as natural strategic step to obtain nationwide scale – however, regulatory approval on short-term regarded as unlikely
 - Further FMC consolidation might reduce addressable market share for TMUS as mobile only player (if AT&T launches FMC offer and Verizon attempts to merge with Comcast)



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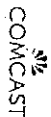
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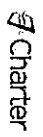
11 FURTHER LONG-TAIL CONSOLIDATION TO BE EXPECTED IN THE FIXED NET MARKET

Trend factualls – excerpt

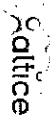
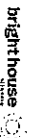
Manifold recent consolidation (attempts) among large cablecos¹



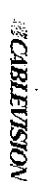
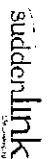
Merger between Comcast (#1) and TWC (#2) prohibited



Charter Comm. (#3) bought TWC (#2) and Bright House (#6)



Alice bought CableVision (#5) and Suddenlink (#9)



Everything below Comcast is in consolidation mode

- D. Goei, (CEO, Altice)

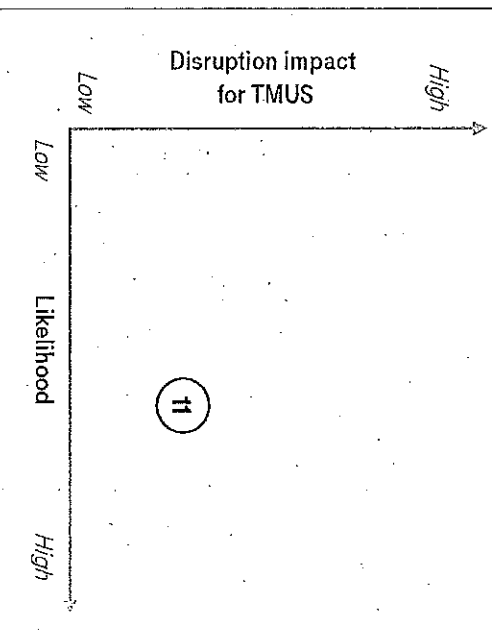
Continued long-tail consolidation to be expected

- Currently still over 400 cable providers in the US (i.e., highly fragmented market)
- Many cable providers are nationwide subscale: 93% of the cable providers operate in one state only and only 20 providers cover more than >1 mn people

“So What” for TMUS

Trend can be disregarded to define a winning position for TMUS

- Continuation of status quo outside of Mobile market bears no disruption potential for TMUS



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¹ Ranking based on population covered in 2014
Source: Team Analysis, broadbandmap.com

12 REGULATORY ENVIRONMENT REMAINS STABLE IN US AND EUROPE

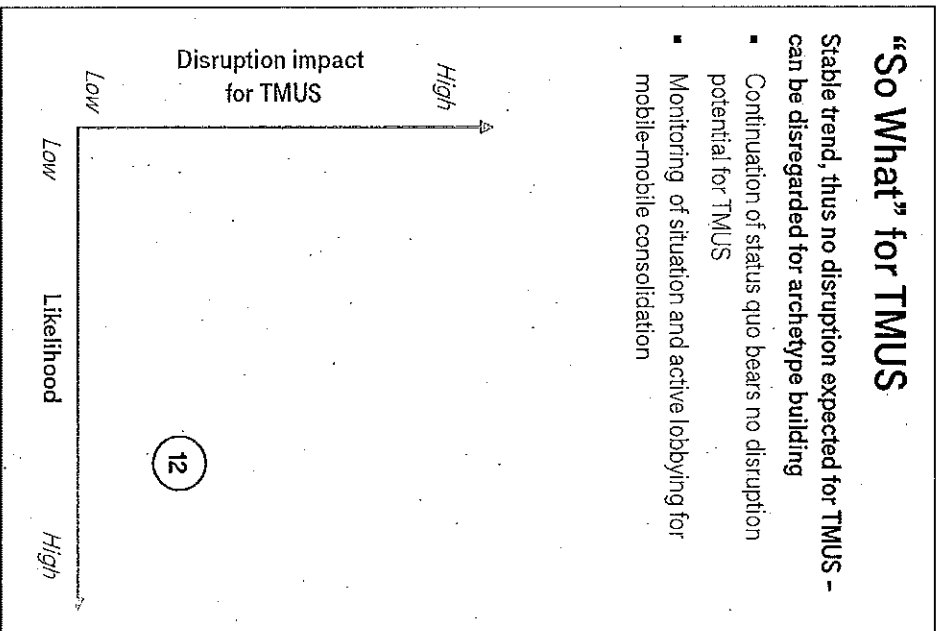
Trend expectations – excerpt

US	VS.	DTEU
Whole-sale <ul style="list-style-type: none">▪ Still no mobile wholesale obligation, thus no new disruptive market entries (MVNOs)▪ No fixed wholesale regulation expected, thus no new market entries by access seekers (e.g., ULL)		<ul style="list-style-type: none">▪ MVNO obligations will likely remain▪ Fixed access regulation might become more lax but significant improvements yet to be seen
Consolidation <ul style="list-style-type: none">▪ 4->3 merger not expected in the short term▪ Major cable consolidation rather unlikely given TWC-Corncast prohibition▪ Cross-sector consolidation will likely get approval		<ul style="list-style-type: none">▪ 4 player mobile markets will remain key objective of EU competition policy▪ No change regarding approach towards FMC consolidation
<i>See trend 10 for further details</i>		
Services regulation <ul style="list-style-type: none">▪ Services regulation will remain rather lax, but potential increases in regulatory tendencies e.g. in consumer protection, net neutrality		<ul style="list-style-type: none">▪ Current high level of regulatory intervention on telcos, application to OTTs seen as likely in the future
Political environment <ul style="list-style-type: none">▪ Overall environment is stable, slight improvements possible with new Republican administration		<ul style="list-style-type: none">▪ Overall environment mixed¹; Regulation expected to remain more intrusive than US

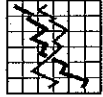
Source: Team Analysis: 1) currently difficult to assess how far investment environment can be improved.




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WRAP UP - US CONTINUES TO BE AN ATTRACTIVE MARKET DESPITE POTENTIAL WILD CARD TRENDS

1  **US continues to have more favorable macroeconomic environment vs. DTEU portfolio countries**



2  **US continues to be the larger market with relatively more attractive growth vs. DTEU portfolio countries**




3  **US continues to have less competitive market structure (e.g., no access seeker business model) vs. DTEU portfolio countries**



4  **US continues to have more operator friendly regulatory environment (i.e., to foster infrastructure invests¹) vs. DTEU portfolio countries**



5  **US customers will continue to have higher spend for telco services (e.g., US mobile ARPUs will remain ~ 22 EUR higher than in DTEU portfolio countries)**



¹ Impact of Net Neutrality policies on investment friendliness yet to be seen. EU might slightly improve.
Source: DTAG, Team Analysis

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Workshop II

- Workshop I recap
- Future competitive dynamics
- So what for TMUS to define a winning position
- Wrap up and next steps.



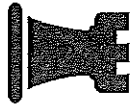
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US MARKET IS AND WILL CONTINUE TO BE MORE ATTRACTIVE THAN DTEU PORTFOLIO MARKETS



US market structure is and will be different vs. EU¹



Competition is and will remain lower than in EU



No major shifts in regulatory policy expected



US ARPUs will remain significantly higher than in EU



Even disruptive market trends will not change the picture

- No nationwide fixed net players

- Less consumer choice for fixed BB/TV

- US regulation more investment friendly² – EU might slightly improve

- Though no increase expected ... and also CAPEX levels significantly higher

- But, there won't be a full "reversion to the mean"

- In US, large domestic players key beneficiaries

¹ EU refers to DTEU portfolio countries Source: DTAG, Team Analysis

² Impact of Net Neutrality policies on investment friendliness yet to be seen



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Details in appendix

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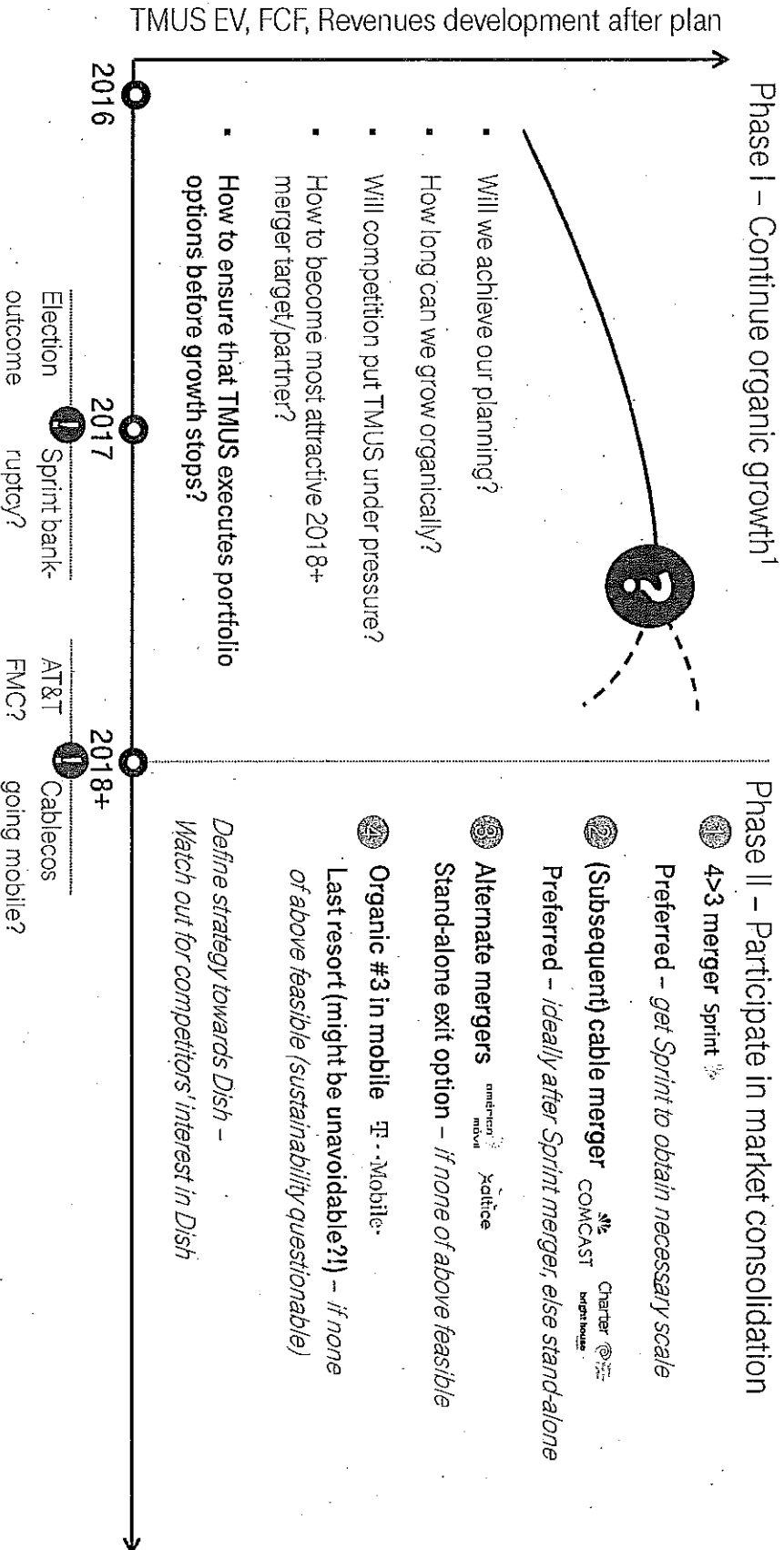
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TMUS TO CONTINUE ORGANIC GROWTH TILL 2018 - PLAY TOWARDS SPRINT AND (THEN) CABLE MERGER

FOR DISCUSSION

TMUS STRATEGY SCHEMATIC OVER TIME



¹ Under derived assumption that competitive dynamics will keep the market structure fairly stable
Source: Team Analysis



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PHASE II: SPRINT AND COMCAST MOST LIKELY MERGER PARTNERS – BUT THERE MIGHT ALSO BE NO ONE?

FOR DISCUSSION

Potential TMUS end-games

Key strategic rationale(s)

Strategic or regulatory barrier(s)

Deal
likelihood

Low
High

① 4>3 mobile merger Sprint

- Sprint on verge of bankruptcy (would love to merge)
- Clear scale gain and synergy potential for TMUS to own ~30% of mobile market (at scale with AT&T, VZ)

- Likelihood of approval will not increase substantially in case of bankruptcy (Analysts: even with Republican administration only <50% probability¹)
- Potential burdensome CFUS process?

② (Subsequent) cable merger COMCAST

- Move into mobile might be only natural option for Comcast to grow, as preferred Comcast moves (i.e., wire-line and content) are unlikely to get regulatory approval
- Bring video content onto mobile (i.e., linear/OTT)
- Potential move into mobile as adjacency play (e.g., eyeball increase, mobile video, cost synergies)

- Likely no significant regulatory barriers²
- If move into content gets regulatory approval, it will be more likely than move into mobile (see appendix)
- No nationwide fixed net – limited FMC potential
- Less likely than Comcast due to lower TMUS footprint overbuild (FMC ability) and weaker financials

③ Alternate mergers

- Creation of one North American service market and synergy potentials with existing verticals
- Return to execution of core business model vs. current MVNO play (TracFone)
- Move into mobile could be an opportunistic adjacency play for Altice

- Likely no regulatory barriers
- Potentially cheaper and better acquisition candidates around the globe
- Altice currently small cable player in US (<4mn TV and broadband subs)
- Greater priority for Altice to acquire wireline
- Sprint better fit for Altice's lean turnaround playbook
- 2018+ sustainability questionable (to be investigated)

④ Organic #3 in mobile

- No merger optionality can be exercised (due to barriers)

Most merger optionality with low deal likelihood – details in appendix

¹ Lobbying campaign needed
² Unless Comcast becomes WFF/MVNO entrant FCC likely to raise concerns regarding vertical integration (i.e., mobile video) - moreover, FWC M&A untested in US
Source: Team Analysis, Expert interviews



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PHASE I: TMUS PLAYBOOK TILL 2018

Action path till eoy 2017



Continue
Uncarrier
growth

- Continue Uncarrier growth in B2C according to plan¹ or above
- Explore further growth adjacencies (e.g., B2B, IoT, M2M, mobile video)



Secure
sufficient
spectrum

- Bid in next incentive auction
- Define strategy towards Dish spectrum (i.e., what is the right acquisition price?) - Hypothesis: Dish currently a distraction – wait until their negotiation power is weakened
- Continue network densification as needed



Pave way for
market
consolidation

- Continue value strategy to keep 4>3 merger optional
- Strengthen lobbying for 4>3 merger (i.e., win “right” people in D.C., media campaign)
- Don’t overplay offending consolidation stakeholders (FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)



Become attractive
consolidation
target for 2018+

- Show openness to consolidate
 - Signal TMUS interest in Sprint and position Sprint as difficult asset for cablecos²
 - Signal TMUS interest in (subsequent³) cable merger and advertise superiority over VZ
- Invest in assets and activities that complement a cableco merger (i.e., large and valuable customer base, network strength, ad and mobile video capabilities)
- Consider MVNO cableco deal to establish long-term partnerships?

¹ Customer revenue, EBITDA, FCF and EV growth
Source: Team Analysis, Expert interviews

² Especially for Coincast, Charter Group and Altice

³ After TMUS + Sprint merger if feasible



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3 US IS A MARKET WITH FEWER COMPETITION VS. DTEU AND DIFFERENT MARKET STRUCTURE

NOT EXHAUSTIVE

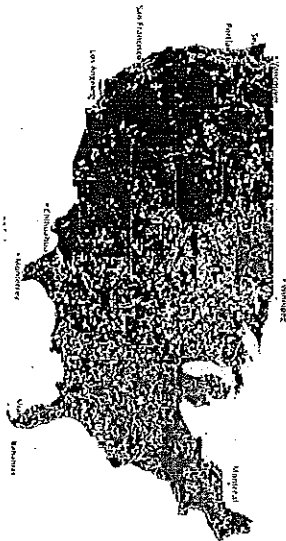
US

■ Area with at least 2 broadband providers

■ Area with 1 or no broadband provider

VS.

DTEU portfolio



- Fixed
 - No nationwide broadband players – high geographical fragmentation
 - Limited FMC ability
 - Limited overbuild for broadband
 - Cable key broadband technology
 - Mobile
 - 2 main players (i.e., from 4 nationwide operators 2 are nationwide subscale)
 - MVNOS not significant in terms of market share
- Strong nationwide incumbent(s) typical
 - FMC as typical value proposition
 - Broadband overbuilt more common
 - No dominating technology for broadband

- Mobile
 - 2 main players (i.e., from 4 nationwide operators 2 are nationwide subscale)
 - MVNOS not significant in terms of market share
- Incumbent and at least 2 further operators common
- MVNOS with significant market shares in Western Europe

¹ According to the National Broadband Map defined as a two-way data transmission with advertised speeds of at least 768 kbps per second (kbps) downstream and at least 200 kbps upstream
Source: DTAG, Team Analysis, Broadband.gov

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4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (1/2)

EXCERPT



US



US regulation aims at fostering investment

Additional focus on consumer welfare and competition also observable

Overall policy objectives



Access seeker Business

No regulated wholesale access

- No obligation to offer fixed wholesale access
- No obligation to offer MVNO access – MVNOS on commercial terms only



Spectrum awards

Reliable and investment friendly spectrum awards

- Transparent and reliable auction designs
- Spectrum ownership enables long-term invest perspective
- Spectrum awarded regionally
- Better secondary market for spectrum
- Significant spectrum allocation for mobile (e.g. 600MHz auction in 2016)



DTEU

EU regulation aims at enhancing competition and securing consumer welfare

Kroes announcement of 2012, recommendation on costing methodologies and non-discrimination, and comments by Oettinger show willingness to improve invest climate

Strict regulated wholesale access obligations enable and protect access seeker business models (e.g., ULL based like 1&1, MVNO like Drillisch, etc.)

Unreliable and investment harming spectrum awards

- Intransparent and non-harmonized auction designs maximizing state proceeds
- No spectrum ownership - limited license durations create investment uncertainties and "extortion potential" in future auctions

¹ US Teeco industry complains about fines above 100mUSD
Source: DTAG, Team Analysis



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4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (2/2)

EXCERPT



US



Services regulation

- Lax consumer protection, net neutrality allows zero-rating
- Very relaxed consumer protection and data privacy policy
- Net Neutrality covers fixed and mobile operators (excl. B2B)
 - Allows for zero-rating¹
 - "Specialized services" possible and could be prioritized²
- Policy driven by case law ("wait-and-see intervention")

Large scale in-market consolidation currently not allowed

- Little support for 4>3 mobile consolidation
- Large scale cable consolidation was put on hold
- FMC/Video consolidation likely to receive clearance
- MVNO competition not considered (e.g. TracFone)



Market consolidation



Political environment

- Overall rather stable political environment
- No sudden regulatory measures for political purposes or to close budget gaps (exception: FCC's net neutrality decision)
- Changes in political powers do not lead to major alterations
- Enables long-term investment perspectives



DTEU

Strict consumer protection, net neutrality allows zero-rating

- Very strict consumer protection and data privacy policy
- Net Neutrality requirements for all operators (mobile, fixed)
 - Allows for zero-rating¹
 - "Specialized services" possible and could be prioritized²
- Policy driven by coordinat. approach amongst regulators

Significant further in-market consolidation questionable

- 4>3 mobile consolidation becoming more difficult, unless structural remedies can be offered
- FMC consolidation so far approved with no (GTS) / light remedies (Belgium)
- Commission with intense focus on keeping up competition

High political uncertainty in some CEE

- Special taxes, excessive fees etc. (e.g. HU, ROM)
- Nationalistic attitudes and critical towards foreign ownership
- Investment environment largely dependent on political parties in power
- Compliance issues in several CEE countries

¹ Zero-rating as long as non-discrimination of other similar services, e.g. video; however no throttling or prioritization of services allowed, e.g. video vs. rest of traffic

² Special services are considered as not being regular internet traffic (such as high-quality VoIP, IPTV) and can be treated differently, definition of "specialized services" not yet finalized in both regions

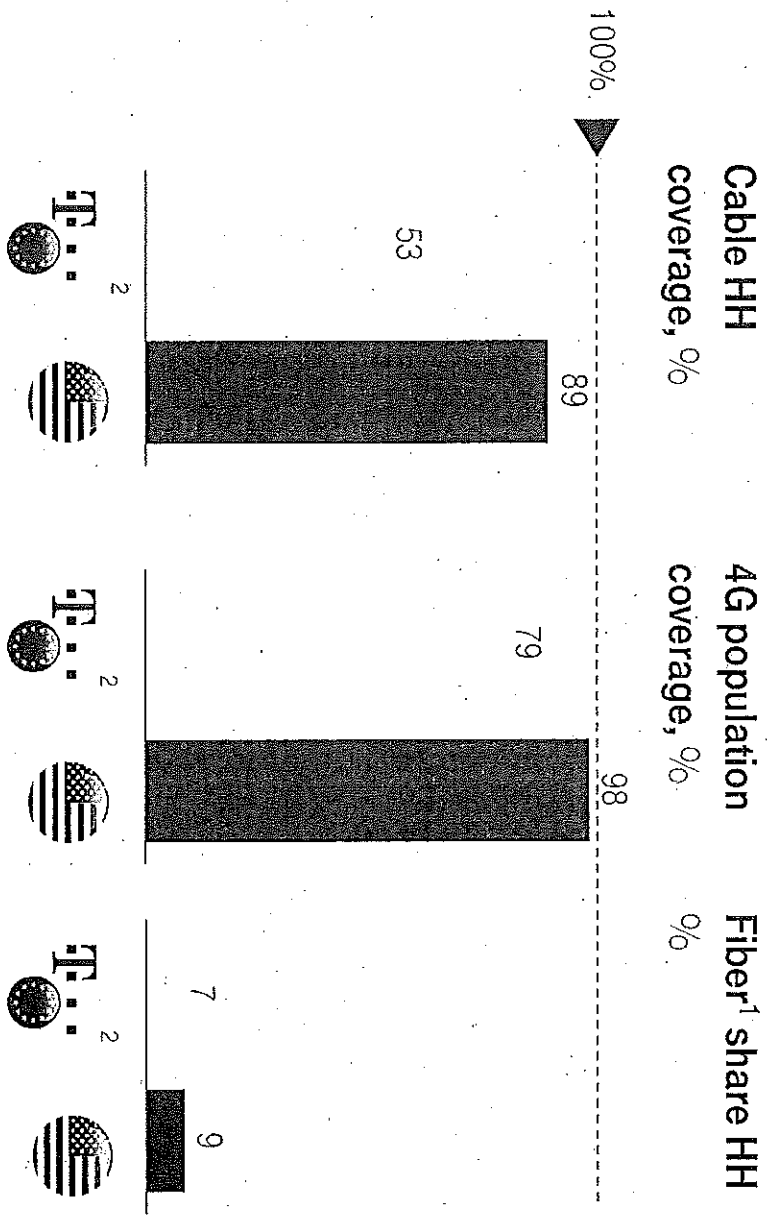
Source: DTAG, Team Analysis



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4 REGULATORY INCENTIVES FORCED A BETTER INFRASTRUCTURE IN US THAN IN DTEU COUNTRIES



¹ 2014 share of broadband subs with FTTH technology as of total number of broadband subs
² Household/ population based weighted average for DT Europe footprint countries without Albania, Macedonia and Montenegro
Source: Digital Agenda - European Union, broadbandmap.gov, press, AT&T, TeleGeography, team analysis



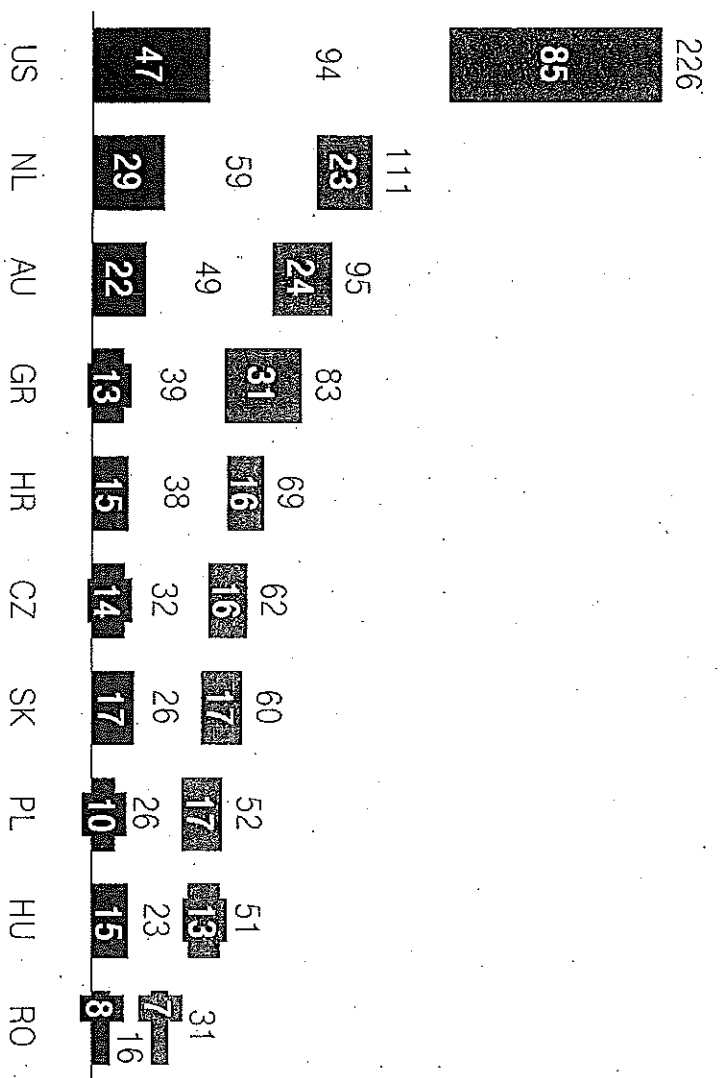
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5 US CUSTOMERS SHOW HIGHER SPEND FOR TELCO SERVICES

Pay-TV¹
Fixed²
Mobile³

Market ARPUs 2014
USD/month



US mobile ARPUs on average around 3x higher than in DTEU footprint countries

US fixed ARPUs on average more than 2.5x higher than in DTEU footprint countries

US Pay-TV ARPUs on average more than 4x higher than in DTEU footprint countries

¹ Includes subscription and on-demand revenue via cable, satellite, IPTV and DTT (excl. TV advertising) ² Based on Mason data ³ Based on DTA's internal estimates
Source: DTA's Team Analysis

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APPENDIX

Workshop I

- Current DTAG position in US vs. European portfolio countries
- Today's market attractiveness of US vs. European portfolio countries
- Key trends shaping the future of the US telco market

Workshop II

- Workshop I recap
- Future competitive dynamics
- So what for TMUS to define a winning position



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1 TMUS + SPRINT MERGER AS PREFERRED MOVE, BUT REGULATORY APPROVAL IS DIFFICULT

Sprint

FOR DISCUSSION

KEY PARAMETERS AT A GLANCE

Deep dive to follow



a Strategic rationale?

- Sprint on verge of bankruptcy (would love to merge)
- Clear scale gain and synergy potential for TMUS to own ~30% of mobile market (at scale with AT&T, VZ)



b Combined network effects?

- 188 MHz additional spectrum - 14MHz in the most attractive low band segment
- Complimentary coverage in select US regions



c Regulatory barriers?

- Regulator will unlikely approve 4>3 mobile merger (even with Republican administration)
- Even in case of bankruptcy regulatory approval might be unlikely (Analysts: also under Republican administration potentially only <50% probability for that)

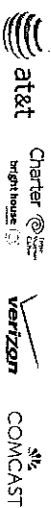


d Key Do's and Don'ts to realize TMUS + Sprint merger

- ✔ Strengthen lobbying activities for 4>3 merger with the "right" people in Washington
- ✔ Position Sprint as difficult merger asset towards AT&T, VZ, and cablecos
- ✔ Continue value strategy (to keep optionality for 4>3 merger)
- ✗ Do not overplay offending consolidation stakeholders
- ✗ Do not follow Sprint in price wars or irrational MVNO deals (sustain ARPU's)



e Sprint is a target to many



f Deal likelihood

- Low
- High
- PRO: Market structure calls for consolidation, 4>3 in the interest of all mobile players
- CON: Regulatory approval for 4>3 merger difficult

"So What" for TMUS

Preferred merger - ideally prior to subsequent cable merger

Continue value strategy to keep optionality for 4>3 merger

Avoid that anyone else gets them (signal Sprint as difficult target to cablecos)

Strengthen lobbying activities for 4>3 merger with the "right" people in Washington

¹ FCC, DOJ, Unions, AT&T, VZ
Source: Team Analysis, Analyst reports, Capital IQ



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REGULATORY APPROVAL AS KEY BARRIER FOR TMUS + SPRINT MERGER

FOR DISCUSSION
Sprint

Near term regulatory approval for 4>3 mobile merger seems highly unlikely

It's going to be hard for someone to make a persuasive case that reducing 4 firms to 3 is actually going to improve competition for the benefit of American consumers.

- William Baer, DOJ

We must protect competition where it exists. Our goal should be to ask how competition can best serve the public.

- Tom Wheeler, FCC

Were [the deal] somehow approved, there would be numerous conditions attached, such as the divestiture of spectrum/other assets and imposition of a wholesale mandate that would bleed off a portion of the financial benefits.

- UBS

... however, various levers for TMUS to lobby for 4>3 mobile-merger exist

- Strengthen lobbying activities for 4>3 merger with the "right" people in Washington
- Don't overplay offending consolidation stakeholders (FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)

- Strong commitment to provide mandatory wholesale at competitive rates could help - additional structural remedies likely to be required

Risk: Bears the danger to reduce ARPLUs and make TMUS less attractive for further merger optionalities

Source: Press Analysis, DTAG, Team analysis



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1C EVEN IN CASE OF SPRINT BANKRUPTCY - FCC MAY NOT ALLOW FOR 4>3 MERGER

Sprint

Current Sprint situation at a glance

Financial distress

- Low EBIT margins (~6% in 2014, ~2% in 2015)
- ~4.5bn USD cash burn rate expected for 2015
- Debt of 2.5bn matures in 12/2016 (currently no Source for refinancing)

Turnaround initiative started

- 2.5bn USD cost-cutting program started in Q2/2015
- Aggressive pricing (i.e., unlimited plan for 60 vs. 80 USD for TMUS)



Outlook for the next ~12 months

Continued support from Softbank expected

- ...to see whether turnaround initiative shows measurable success
- ...to wait for presidential elections (even though 4>3 approval remains unlikely under Republican administration, it is worthwhile a wait)



2 potential outcomes by eoy 2016

Outcome 1 - Sprint turnaround fails and bankruptcy is unavoidable

- Likelihood of approval will not increase substantially in case of bankruptcy¹ (Analysts: even with Republican administration only <50% probability)

- If allowed - mobile players most likely purchasers (as operational synergies are larger for MNOs vs. cablecos)

Outcome 2 - Turnaround shows success and Softbank continues financing

¹ The failing firm defense is rarely invoked in court or before agencies. When it is, it is perceived as rarely successful Source: Analyst reports, Team analysis.



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2 PREPARE FOR COMCAST BUYING TMUS AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

COMCAST
Deep dive to follow



a Strategic rationale for Comcast?

- Move into mobile might be only natural option to grow as preferred moves (i.e., wireline and content) are unlikely to get regulatory approval
- Several strategic advantages
 - Increase eyeballs
 - Bring video content onto mobile (i.e., linear/OTT)
 - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
 - Realize cost and network synergies through economies of scale
 - Fits with Wi-Fi first approach



b Combined network effects?

- ~90mn people with Comcast access in the states where TMUS has >70% coverage¹
- ~59mn TMUS customers vs. ~22mn Comcast TV & ~23mn Broadband subscribers



c Regulatory barriers?

- Likely no significant regulatory barriers?



d Key Do's and Don'ts to dress TMUS for optionality?

- Bid for spectrum & continue densification
 - Increase customer base (i.e., especially younger, video affine demographics)
 - Signal Sprint as difficult asset for Comcast and signal interest to merge with Comcast subsequent to potential TMUS + Sprint merger
 - Don't enter into fixed (i.e., wholebuy, FMS) without thinking through what it means for Comcast merger
- Sprint**
It still existent and stabilized
Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)



e Alternate brides for Comcast?

Verizon
Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)



f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: No wireless experience, only small growth in wireless, limited FMC ability, likely to explore alternate adjacencies if at all feasible (i.e., wireline and content)

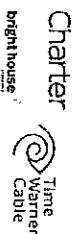


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¹ Percent of the population with T-Mobile wireless access in that geography
² FCC likely to raise concerns if Comcast becomes WiFi/MVNO entrant and regarding vertical integration (i.e., mobile video)
Source: Team Analysts, Analyst reports, Capital IQ, Broadbandnow.com

2 PREPARE FOR CHARTER GROUP MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



Deep dive to follow



a Strategic rationale for Charter Group?

- Potential move into mobile as adjacency play
- Several strategic advantages
 - Increase eyeballs
 - Bring video content onto mobile (i.e., linear/OTT)
 - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
 - Realize cost and network synergies through economies of scale
 - Fits with Wi-Fi first approach



b Combined network effects?

- ~80mn people with Charter Group access in the states where TMUS has a >70% coverage¹
- ~59mn TMUS customers vs. ~17mn Charter Group TV & ~20mn Broadband subscribers



c Regulatory barriers?

- Likely no significant regulatory barriers²



d Key Do's and Don'ts to dress TMUS for optionality

- ✔ Increase customer base (i.e., especially younger, video affine demographics)
- ✔ Bid for spectrum & continue densification
- ✔ Signal Sprint as difficult asset for Charter Group and show interest in (subsequent) Charter deal
- ✘ Don't enter into fixed (i.e., wholebuy, FMS) without thinking through what it means for Charter merger



e Alternate brides for Charter group?

- If still existent and significantly stabilized
- Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)



f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: Occupied with post-merger efforts for next 1-3 years, financially torn, higher synergies with fixed players (i.e., CenturyLink, Frontier), no wireless experience, limited FMC ability



¹ Percent of the population with T-Mobile wireless access in that geography
² FCC likely to raise concerns if Charter Group becomes Wi-Fi/MVNO entrant and regarding vertical integration (i.e., mobile video)
 Source: Team Analysis, Analyst reports, Capital IQ, Broadbandmap.com, Broadbandmap.gov



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"So What" for TMUS

Preferred merger – if possible after Sprint merger, else stand-alone

Be attractive bride by investing in network strength and growth of subscriber base

Avoid Charter + Sprint or VZ merger (signal Sprint as difficult target)

Signal merger interest with Charter (i.e., à la "you can get a merged TMUS + Sprint")

2D STRONG NETWORK TOGETHER WITH SUB + FCF GROWTH KEY TO DRESS FOR CABLECOS

FOR DISCUSSION
COMCAST
Charter
Brightstar
Time Warner Cable

Do's

- ✓ Invest in a strong network (i.e., acquire spectrum, increase densification, engage in WiFi offloading)
- ✓ Increase customer base – focus especially on the younger, video affine demographics that consume significant amounts of mobile video
- ✓ Further strengthen P&L and balance sheet – to allow TMUS enter into merger negotiations from a position of strength
- ✓ Consider creation of mobile-only video content (i.e. short form) that could be integrated in cablecos OTT offering
- ✓ Safeguard and further expand “sexy and innovative” T-Mobile image
- ✓ Try to establish/acquire attractive mobile ad-technology that is feasible for both mobile and cable players

VS

Don'ts

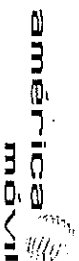
- ✗ Don't decrease prices and ARPU levels too much for the sake of customer growth / as reaction to Sprint
- ✗ Don't experiment with offers that could increase churn of existing customer base
- ✗ Don't duplicate “innovative capabilities” that are already present at cablecos but lacking at TMUS
- ✗ Don't enter the wireline domain¹, i.e., own build-out, commercial whole-buy, FMS – might make cable moves more difficult and a financial benefit unlikely

¹ Without having a long-term strategy that includes a consolidation plan
Source: Team Analysis, Expert interviews



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3 PREPARE FOR AMERICA MOVIL MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



a Strategic rationale for America Movil?

- Become full-fledged US MNO (execution of AM's core business model)
- Several strategic advantages
 - Increased eyeballs (>83mn mobile subs)
 - Creation of one North American mobile service market (US, Mexico)
 - Realization of cost synergies through economies of scale and MVNO->MNO transition



d Key Do's and Don'ts to dress TMUS for optionality?

- ✔ Increase customer base
- ✔ Bid for spectrum & continue densification
- ✔ Signal Sprint as difficult asset for AM
- ✔ Signal merger interest to AM
- ✔ Ensure that any potential MVNO deal is long-term beneficial to TMUS
- ✗ Don't engage in price war (sustain ARPU's)



b Combined network effects?

- 25.7mn mobile subscribers in US via MVNO TracFone
- Merged company could have >100mn mobile subscribers by 2019¹



e Alternate brides for AM? Sprint

If still existent and significantly stabilized



c Regulatory barriers?

- No regulatory barriers expected (i.e., merged company would be smaller than AT&T or VZ)



f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: Potentially better investment opportunities in other core markets (i.e., LATAM)



¹ TMUS subscriber base forecasted to be ~76mn by 2019
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com



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Alice

3 PREPARE FOR ALICE MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



- a Strategic rationale for Alice?**
 - Move into mobile could be an opportunistic adjacency play for Alice (much like a PE player)



- b Combined network effects?**
 - ~16.9mn people with Alice access in the states where TMUS has a >70% coverage¹
 - ~59mn TMUS customers vs. ~3.5mn Alice TV (of which about 2.5mn in NY) and ~4mn broadband subscribers




- c Regulatory barrier?**
 - No regulatory barriers expected (i.e., due to wireline vs. wireless presence)



- d Key Do's and Don'ts to dress TMUS for optionality**
 - ✔ Bid for spectrum & continue densification
 - ✔ Increase customer base
 - ✔ Signal Sprint turnaround as too challenging for Alice (given no wireless experience nor relevant synergies)
 - ✔ Ensure that any potential MVNO deal is long-term beneficial to TMUS
 - ✘ Don't engage in price war (sustain ARPUs)



- e Potential alternate Alice targets**
 - Sprint  If still existent and stabilized



- f Deal likelihood?**
 - Low
 - High
 - UNLIKELY: Higher synergies with fixed players (i.e., Centurylink, Frontier), Sprint much better fit for their lean turnaround playbook



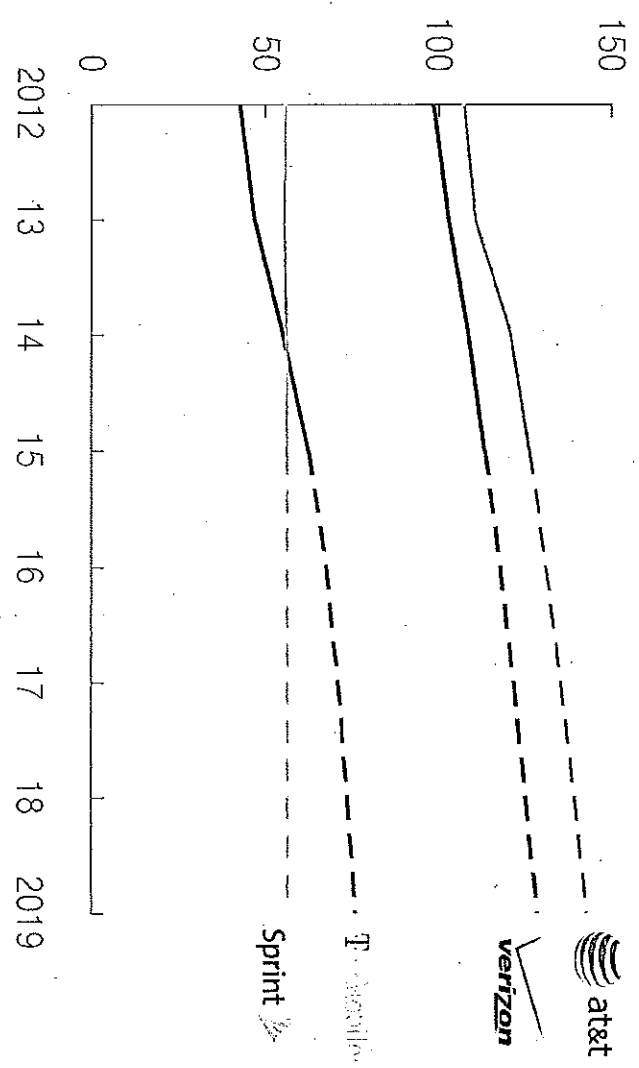
¹ Percent of the population with T-Mobile wireless access in that geography
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com

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"So What" for TMUS
Be attractive bride by investing in network strength and growth of subscriber base
Avoid Alice + Sprint merger (signal Sprint as too challenging to turn around)

4 TMUS EXPECTED TO GROW ORGANICALLY TO ~76MN CUSTOMERS BY 2019

Customer development 2012-19¹ of 4 major mobile players Mn



CAGR 2015-19 ~%

- 3
- 3
- 5
- 0






iPF predicts ~76mn TMUS customers by 2019 (4.9% 2015-19 growth p.a., adding ~4.1 mn customers annually)
TMUS expected to be a strong 3rd player by 2019

¹ TMUS based on iPF 16-19, AT&T and VZ based on overall market growth except for TMUS. Sprint assumed to be flat
Source: iPF, Team Analysis



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5 DON'TS TO MAINTAIN 2018+ MERGER OPTIONS

-  Don't enter into MVNO deal that could complicate consolidation
(Deals should increase TMUS value)
-  Don't trigger a price war in the US market
(Stable ARPUs base drives attractiveness & valuation)
-  Don't overplay offending consolidation stakeholders
(FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)
-  Don't invest in asset heavy media, i.e., content rights or production
(Lack of scale for TMUS and unlikely return on capital)
-  Don't enter the wireline domain¹, i.e., own build-out, whole-buy, FMS
(Might make cable moves more difficult + financial benefit unlikely)

¹ Without having a long-term strategy that includes a consolidation plan.
Source: Team Analysis



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Full Discussion

Key partner
merger options

Sprint

COMCAST

Charter
bright house
Time Warner
Cable

américa
móvil

altice

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JCAPSTA1

1 UNITED STATES DISTRICT COURT
2 SOUTHERN DISTRICT OF NEW YORK

3 STATE OF NEW YORK, *et al.*,

4 Plaintiffs,

New York, N.Y.

5 v.

19 Civ. 5434(VM)

6 DEUTSCHE TELEKOM AG, *et al.*,

7 Defendants.

8 December 10, 2019
9 9:05 a.m.

10 Before:

11 HON. VICTOR MARRERO,

12 District Judge

13 APPEARANCES

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21 STATE OF NEW YORK
22 Office of the Attorney General
23 Attorneys for State of New York
BY: ELINOR R. HOFFMANN
24 BEAU W. BUFFIER
25

JCATSTA4

Langheim - Direct

1 BY MR. MACH:

2 Q. Now in early December 2015, DT also held a workshop with
3 McKinsey in DT offices in Germany, right?

4 A. Yes.

5 Q. And DT regularly retains outside advisers, right?

6 A. We speak to a lot of industry sources, consignors,
7 advisers, bankers, yes.

8 Q. And DT relies on those outside advisers in the ordinary
9 course of its business, correct?

10 A. You listen to opinions and sometimes you agree and
11 sometimes you disagree. You collect a lot of information on
12 the topic.

13 Q. And the outside advisers that you rely on include companies
14 like Bayne (ph) and McKinsey, right?

15 A. Yes, all the strategic advisers and a lot of banks.

16 Q. And McKinsey was involved in organizing workshop in
17 December 2015, right?

18 A. Yes.

19 Q. And DT was also involved in organizing the workshop?

20 A. Yes.

21 Q. And you were personally involved in organizing that as
22 well, right?

23 A. Giving guidance, asking the question that should have been
24 tackled at the meeting, yes.

25 Q. Is that another way of saying that you set the agenda for

JCATSTA4

Langheim - Direct

1 Mr. Langheim, and Mr. Langheim setting the agenda, discussing
2 the content that should go in it, and there it is, the next
3 page. I don't think that's a McKinsey document.

4 A. First of all, these two gentlemen are gentlemen that do
5 not work for me. They report to the head of strategy who
6 reports to Tim Höttges and to not me.

7 MR. MACH: Thank you. I didn't mean to misstate that.
8 They work for DT.

9 MR. PARKER: So they hired somebody at McKinsey to
10 give them an opinion, give them some advice, and you have to
11 have your own people talking to them to make sure they're
12 giving you advice on something relevant. So then McKinsey
13 comes out with its advice so he can take that into account in
14 making decisions, but that doesn't make this our document. And
15 they certainly could have taken the deposition or called the
16 McKinsey folks and we wouldn't have this problem.

17 THE COURT: Sustained.

18 MR. MACH: Respectfully, your Honor, may I respond?

19 THE COURT: You may.

20 MR. MACH: So the courts have held that even if what
21 counsel has argued is correct and it was created by McKinsey at
22 the request of DT and was created with guidance and input as to
23 what the document should say, that that makes the document
24 qualify as a party admission. It's what the court held in *FTC*
25 *V. Qualcomm*, which recognizes that multiple courts have said

JCATSTA4

Langheim - Direct

1 MR. MACH: I am starting a substantially different
2 subject. If you want me to continue, I will be happy to,
3 but --

4 THE COURT: Why don't we adjourn then, 45 minutes.

5 (Luncheon recess taken)

6 (Continued on next page)

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JCAVSTA5

Langheim - direct

1 I did not see in this case that that evidentiary
2 support was there. All right?

3 Thank you. Proceed.

4 MR. MACH: Thank you very much, your Honor.

5 THORSTEN LANGHEIM, resumed.

6 BY MR. MACH:

7 Q. Welcome back, Mr. Langheim.

8 I'd like to ask you some questions about DISH.

9 A. DISH, yes.

10 Q. Once it was clear to DT that DISH would be the divestiture
11 buyer, you asked your team to evaluate DISH's potential to
12 build its network, right?

13 A. Yes.

14 Q. And you asked your team to figure out what DISH could
15 achieve in a worst-case scenario from DT's perspective, right?

16 A. Yes.

17 Q. And in response, your team conducted an analysis, right?

18 A. Yeah.

19 Q. And your team also engaged in a variety of other
20 discussions about the probability of DISH building a
21 significant wireless network in the United States; correct?

22 A. Yes. Correct.

23 Q. And your team assured you repeatedly that DISH is not going
24 to build its own wireless network; correct?

25 A. They run analysis about how much they would buy a buildout

From: Stern, Steffen [/O=TMSX/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=S.STERN]
Sent: 12/15/2015 4:37:25 PM
To: Langheim, Thorsten [thorsten.langheim@telekom.de]
CC: Budde, Matthias [matthias.budde@telekom.de]
Subject: US Workshop 2 Doc

Thorsten,

anbei das Dokument für den morgigen US Workshop – dieses Mal sehr kompaktes Format.

Vorab: Hannes Wittig hat darum gebeten, auch am WS teilnehmen zu dürfen. OK für Dich?

Kern-Messages und Diskussionspunkte:

Starting point (recap from WS1)

- US market is and will be more attractive than EU portfolio markets
- TMUS won't earn its cost of capital in the next years, but contributes significant growth and positive FCF to DT, resulting in increasing EV

Discussion point 1: Competitive environment

- We do not expect major structural changes in US market in the next 2-3 years which will significantly affect TMUS
- Highest uncertainty coming from Sprint that may go bankrupt or start acting irrationally
- 2nd highest uncertainty from potential irrational moves of AT&T

Discussion point 2: What does this mean for TMUS?

- Based on our market analysis, we assume that TMUS will be able to deliver on its planning for the next 2-3 years (i.e. show future growth). We should discuss:
 - Will TMUS achieve planning?
 - When will growth stop?
- What are potential long-term consolidation scenarios?
- Sprint – preferred but feasibility?
- (subsequent) cable merger – preferred, seems feasible, but would cableCos also be interested in it?
- In case options above won't work out: America Movil, Altice as alternatives?
- BUT: We also might end up without a merger!
- Critical questions - and we should discuss these thoroughly:
 - How to ensure that TMUS executes portfolio options before growth stops?
 - How to ensure that TMUS can act in consolidations from a position of strength?

Looking forward to the discussion. Happy to align / discuss upfront if you wish to.

Best,
Steffen



CERTIFICATION

TransPerfect is globally certified under the standards ISO 9001:2015, ISO 17100:2015, and ISO 18587:2017. This Translation Certificate confirms the included documents have been completed in conformance with the Quality Management System documented in its ISO process maps and are, to the best knowledge and belief of all TransPerfect employees engaged on the project, full and accurate translations of the source material.

File Name(s): DT-DOJ-00085478 for translation

Source Language(s): German

Target Language(s): English

Authorized Signature:

A handwritten signature in black ink, appearing to read 'Maria Jose Ramos Manrique', written over a horizontal line.

Name: Maria Jose Ramos Manrique

Title: Senior Project Manager

Date: December 10th, 2019

Reason for signature: I approve the accuracy of this document content as written

From: Stern, Steffen [/O=TMSX/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=S.STERN]
Sent: 12/15/2015 4:37:25 PM
To: Langheim, Thorsten [thorsten.langheim@telekom.de]
CC: Budde, Matthias [matthias.budde@telekom.de]
Subject: US Workshop 2 Doc

Thorsten,

Attached please find the document for tomorrow's workshop – it will be a very compact format this time.

In advance: Hannes Wittig has therefore also asked to take part in the WS. Is that OK for you?

Key messages and points for discussion:

Starting point (recap from WS1)

- US market is and will be more attractive than EU portfolio markets
- TMUS won't earn its cost of capital in the next years, but contributes significant growth and positive FCF to DT, resulting in increasing EV

Discussion point 1: Competitive environment

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 - In case options above won't work out: America Movil, Altice as alternatives?
 - BUT: We also might end up without a merger!
- Critical questions - and we should discuss these thoroughly:
 - How to ensure that TMUS executes portfolio options before growth stops?
 - How to ensure that TMUS can act in consolidations from a position of strength?

Looking forward to the discussion. Happy to align / discuss upfront if you wish to.

Best,
Steffen

DTAG - DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL

Workshop II
16.12.2015

Discussion
document



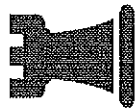
LIFE IS FOR SHARING.

US MARKET IS AND WILL CONTINUE TO BE MORE ATTRACTIVE THAN DTEU PORTFOLIO MARKETS



US market structure is and will be different vs. EU¹

- No nationwide fixed net players



Competition is and will remain lower than in EU

- Less consumer choice for fixed BB/TV



Redaction - Privileged

- In US, large domestic players key beneficiaries



US ARPUs will remain significantly higher than in EU

- Though no increase expected
- ... and also CAPEX levels significantly higher



Even disruptive market trends will not change the picture

¹ EU refers to DTEU portfolio countries
Source: DTAG, Team Analysis



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Details in appendix

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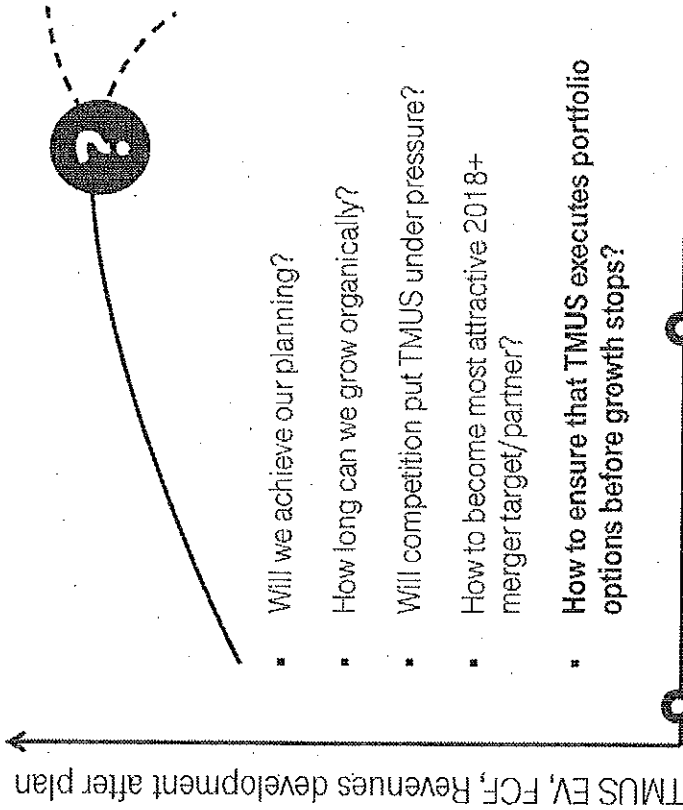
FOR DISCUSSION

TMUS TO CONTINUE ORGANIC GROWTH TILL 2018 - PLAY TOWARDS SPRINT AND (THEN) CABLE MERGER

TMUS STRATEGY SCHEMATIC OVER TIME

- ① Event may alter market structure
- ② Deep dive to follow

Phase I – Continue organic growth¹



Phase II – Participate in market consolidation

- ① 4>3 merger Sprint
Preferred – get Sprint to obtain necessary scale
- ② (Subsequent) cable merger COMCAST Charter
Preferred – ideally after Sprint merger, else stand-alone
- ③ Alternate mergers emporia movi
Stand-alone exit option – if none of above feasible
- ④ Organic #3 in mobile T-Mobile
Last resort (might be unavoidable?!) – if none of above feasible (sustainability questionable)

Define strategy towards Dish –
Watch out for competitors' interest in Dish

¹ Under clarified assumption that competitive dynamics will keep the market structure fairly stable
Source: Team Analysis.

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PHASE II: SPRINT AND COMCAST MOST LIKELY MERGER PARTNERS - BUT THERE MIGHT ALSO BE NO ONE?

FOR DISCUSSION

Low
High
Deal
likelihood

Potential TMUS end-games

① 4>3 mobile merger

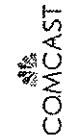
Key strategic rationale(s)

- Sprint on verge of bankruptcy (would love to merge)
- Clear scale gain and synergy potential for TMUS to own ~30% of mobile market (at scale with AT&T, VZ)

Strategic or regulatory barrier(s)

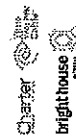
- **Redaction - Privileged**
Redaction - Privileged (Analysts: even with Republican administration only <50% probability)

② (Sub-sequent) cable merger



- Move into mobile might be only natural option for Comcast to grow
- **Redaction - Privileged**
Redaction - Privileged
- Bring video content onto mobile (i.e., linear/OTT)

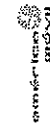
- **Redaction - Privileged**
Redaction - Privileged
- If move into content gets regulatory approval, it will be more likely than move into mobile (see appendix)
- No nationwide fixed net - limited FMC potential



- Potential move into mobile as adjacency play (e.g., eyeball increase, mobile video, cost synergies)

- Less likely than Comcast due to lower TMUS footprint overbuild (FMC ability) and weaker financials

③ Alternate mergers



- Creation of one North American service market and synergy potentials with existing verticals
- Return to execution of core business model vs. current MVNO play (TrafOne)

- **Redaction - Privileged**
Redaction - Privileged
- Potentially cheaper and better acquisition candidates around the globe



- Move into mobile could be an opportunistic adjacency play for Alicia

- Alicia currently small cable player in US (<4mn TV and broadband subs)

④ Organic #3 in mobile

- No merger optionality can be exercised (due to barriers)

- 2018+ sustainability questionable (to be investigated)

Most merger optionality with low deal likelihood - details in appendix

Redaction - Privileged

Source: Team Analysts, Expert Interviews



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FOR DISCUSSION

PHASE I: TMUS PLAYBOOK TILL 2018

Action path till eoy 2017



Continue
Uncarrier
growth

- Continue Uncarrier growth in B2C according to plan¹ or above
- Explore further growth adjacencies (e.g., B2B, IoT, M2M, mobile video)
- Bid in next incentive auction
- Define strategy towards Dish spectrum (i.e., what is the right acquisition price?) – Hypothesis: Dish currently a distraction – wait until their negotiation power is weakened
- Continue network densification as needed



Secure
sufficient
spectrum



Pave way for
market
consolidation

- Continue value strategy to keep 4>3 merger optionality

Redaction - Privileged



Become attractive
consolidation
target for 2018+

- Show openness to consolidate
 - Signal TMUS interest in Sprint and position Sprint as difficult asset for cablecos²
 - Signal TMUS interest in (subsequent³) cable merger and advertise superiority over VZ
- Invest in assets and activities that complement a cableco merger (i.e., large and valuable customer base, network strength, ad and mobile video capabilities)
- Consider MVNO cableco deal to establish long-term partnerships?

¹ Customer, revenue, EBITDA, FCF and EV growth
Source: Team Analysis, Expert Interviews

² Especially for Comcast, Charter Group and Altice

³ After T-Mobile + Sprint merger if feasible

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DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL



Context

DT has 2 large portfolio elements besides Germany and UK: TMUS and DTEU

- TMUS delivered strong performance over past 2 years¹ and drives DT's growth
- EU portfolio has been struggling² and recovery to stable business is uncertain

In consequence, TMUS gained more importance within DT (revenues and EBITDA) while the EU portfolio has lost in relevance.

However, stability of TMUS business model in long-run unsure given its sub-scale position, competitive environment, and potential market changes

1 +20% revenue from Q2/13 to Q2/15, +34% total customers from Q2/13 to Q2/15
2 -8% revenue from Q2/13 to Q2/15
Source: DTAG



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Case: 1:19-cv-05435-VM

P Ex 329



Objective

Create a deeper understanding of differences in US vs. DTEU portfolio market environment, structure and attractiveness

Identify major trends for the US that can disrupt current telco business models

Develop potential market “end-game” archetypes for the US

Outline options for TMUS to address key challenges in respective “end-game” archetypes (i.e., defining a winning position).

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RECAP WS1 – US MARKET IS AND WILL CONTINUE TO BE MORE ATTRACTIVE THAN DTEU PORTFOLIO MARKETS

Key findings

US market structure is and will be different vs. EU²

- No nationwide fixed net players

Rationale¹

- Competitive authorities did not allow Comcast/TWC merger and split up AT&T in the past – no change in FCC ruling expected in this respect
- MVNOs on purely commercial terms & not enforced by regulator – neither change in regulation, nor irrational MVNO pricing behavior of MNOs expected
- Fixed: Limited broadband overbuild / regional monopolies and high barriers to entry
- Mobile: New WiFi-First / MVNO based players will not gain significant mobile share given unattractive financials of such business (rationale MNO behavior expected) and limited capabilities (i.e., no brand, lacking channels, handsets)

Competition is and will remain lower than in EU

- Less consumer choice for fixed BB/TV

Redaction - Privileged

- In US, large domestic players are key beneficiaries

US ARPUs will remain significantly higher than in EU

- Though no increase expected
...and also CAPEX levels significantly higher

Even disruptive market trends will not change the picture

¹ Based on analyst / expert discussions ² EU refers to DTEU portfolio countries

Redaction - Privileged

Source: DTAG, Team Analysis



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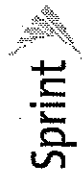
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Redaction - Privileged

- Key beneficiaries of US regulation are large US players as Sprint/TMUS suffer from scale disadvantages
- Both APPUs and required invest ~2x higher than in EU (hence US industry ROCE level not superior)
- US customers more value focused & with higher usage - less price elastic than in EU
- US customers with significantly higher disposable income (2-3x higher than in EU)
- No detrimental pricing moves expected: lower competition, less regulation & more favorable market structure
- Convergence (FMC, mobile + TV): could emerge driven by AT&T and VZ/Comcast, but value protecting approach expected (EU seen as bad example) + lack of countrywide fixed net reduces incentive & impact
- eSIM / OEM taking over customers: due to lack of MNO backing no disruptive impact expected, Sprint alone not sufficient to make eSIM a success.

FOR DISCUSSION

1 TMUS + SPRINT MERGER AS PREFERRED MOVE, BUT REGULATORY APPROVAL IS DIFFICULT



KEY PARAMETERS AT A GLANCE

Deep dive to follow



a Strategic rationale?

- Sprint on verge of bankruptcy (would love to merge)
- Clear scale gain and synergy potential for TMUS to own ~30% of mobile market (at scale with AT&T, VZ)



b Combined network effects?

- 188 MHz additional spectrum ~ 14MHz in the most attractive low band segment
- Complimentary coverage in select US regions



c Regulatory barriers?

- **Redaction - Privileged**
Redaction - Privileged (even with Republican administration)
- **Redaction - Privileged**
Redaction - Privileged (Analysis: also under Republican administration potentially only <50% probability for that)

Redaction - Privileged
Source: Team Analysis, Analyst reports, Capital IQ



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d Key Do's and Don'ts to realize TMUS + Sprint merger

Redaction - Privileged

- ✓ Position Sprint as difficult merger asset towards AT&T, VZ, and cablecos
- ✓ Continue value strategy (to keep optionality for 4>3 merger)

Redaction - Privileged



e Sprint is a target to many



f Deal likelihood

- PRO: Market structure calls for consolidation, 4>3 in the interest of all mobile players



Redaction - Privileged

"So What" for TMUS

- Preferred merger -- ideally prior to subsequent cable merger
- Continue value strategy to keep optionality for 4>3 merger
- Avoid that anyone else gets them (signal Sprint as difficult target to cablecos)

Redaction - Privileged

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FOR DISCUSSION

Sprint

Redaction - Privileged

Redaction - Privileged

It's going to be hard for someone to make a persuasive case that reducing 4 firms to 3 is actually going to improve competition for the benefit of American consumers.

- William Baer, DOJ

We must protect competition where it exists. Our goal should be to ask how competition can best serve the public.

- Tom Wheeler, FCC

Were [the deal] somehow approved, there would be numerous conditions attached, such as the divestiture of spectrum/other assets and imposition of a wholesale mandate that would bleed off a portion of the financial benefits.

- UBS

Source: Press Analysis, DTAG, Team analysis



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Redaction - Privileged

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FOR DISCUSSION



Redaction - Privileged

Sprint

Current Sprint situation at a glance

Financial distress

- Low EBIT margins (~6% in 2014, ~2% in 2015)
- ~4.5bn USD cash burn rate expected for 2015
- Debt of 2.5bn matures in 12/2016 (currently no source for refinancing)

Turnaround initiative started

- 2.5bn USD cost-cutting program started in Q2/2015
- Aggressive pricing (i.e., unlimited plan for 60 vs. 80 USD for TMUS).

Outlook for the next ~12 months

Continued support from Softbank expected

- ...to see whether turnaround initiative shows measurable success

Redaction - Privileged

2 potential outcomes by eoy 2016

Outcome 1 – Sprint turnaround fails and bankruptcy is unavoidable

Redaction - Privileged

Outcome 2 – Turnaround shows success and Softbank continues financing

Redaction - Privileged

Source: Analyst reports, team analysis



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FOR DISCUSSION

2 PREPARE FOR COMCAST BUYING TMUS AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

COMCAST

Deep dive to follow



a Strategic rationale for Comcast?

- Move into mobile might be only natural option to grow
- Several strategic advantages
 - Increase eyeballs
 - Bring video content onto mobile (i.e., linear/OTT)
 - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
 - Realize cost and network synergies through economies of scale
 - Fits with Wi-Fi first approach

Redaction - Privileged

Redaction - Privileged



b Combined network effects?

- ~90mn people with Comcast access in the states where TMUS has >70% coverage¹
- ~59mn TMUS customers vs. ~22mn Comcast TV & ~23mn Broadband subscribers



c Regulatory barriers?

Redaction - Privileged



d Key Do's and Don'ts to dress TMUS for optionality?

- Bid for spectrum & continue densification
- Increase customer base (i.e., especially younger, video affine demographics)
- Signal Sprint as difficult asset for Comcast and signal interest to merge with Comcast subsequent to potential TMUS + Sprint merger
- Don't enter into fixed (i.e., wholesale, FMS) without thinking through what it means for Comcast merger



e Alternate brides for Comcast?

Sprint

- If still existent and stabilized
- Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)



f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: No wireless experience; only small growth in wireless, limited FMC ability, likely to explore alternate adjacencies if at all feasible (i.e., wireline and content)

Low High

"So What" for TMUS

- Preferred merger - ideally after Sprint merger, else stand-alone
- Be attractive bride by investing in network strength and growth of subscriber base
- Avoid Comcast + Sprint or VZ merger (signal Sprint as difficult target)
- Signal merger interest with Comcast (i.e., à la "you can get a merged TMUS + Sprint")

¹ Percent of the population with T-Mobile wireless access in that geography
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com



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FOR DISCUSSION



Deep dive to follow

2 PREPARE FOR CHARTER GROUP MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



a Strategic rationale for Charter Group?

- Potential move into mobile as adjacency play
- Several strategic advantages
 - Increase eyeballs
 - Bring video content onto mobile (i.e., linear/OTT)
 - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
 - Realize cost and network synergies through economies of scale
 - Fits with Wi-Fi first approach



b Combined network effects?

- ~80mn people with Charter Group access in the states where TMUS has a >70% coverage¹
- ~59mn TMUS customers vs. ~17mn Charter Group TV & ~20mn Broadband subscribers



c Regulatory barriers?

Redaction - Privileged



d Key Do's and Don'ts to dress TMUS for optionality

- ✓ Increase customer base (i.e., especially younger, video affine demographics)
- ✓ Bid for spectrum & continue densification
- ✓ Signal Sprint as difficult asset for Charter Group and show interest in (subsequent) Charter deal
- ✗ Don't enter into fixed (i.e., wholesale, FMS) without thinking through what it means for Charter merger



e Alternate brides for Charter group?

- Sprint**
 - If still existent and significantly stabilized
 - Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)
- Verizon**



f Deal likelihood?

- PRO: Strategic rationale (see section a)
 - CON: Occupied with post-merger efforts for next 1-3 years, financially torn, higher synergies with fixed players (i.e., CenturyLink, Frontier), no wireless experience, limited FMC ability
- Low High

"So What" for TMUS

- Preferred merger - if possible after Sprint merger, else stand-alone
- Be attractive bride by investing in network strength and growth of subscriber base
- Avoid Charter + Sprint or VZ merger (signal Sprint as difficult target)
- Signal merger interest with Charter (i.e., à la "you can get a merged TMUS + Sprint")

¹ Percent of the population with T-Mobile wireless access in that geography
Redaction - Privileged
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com, Broadbandmap.gov



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FOR DISCUSSION

2 STRONG NETWORK TOGETHER WITH SUB + FCF GROWTH KEY TO DRESS FOR CABLECOS



COMCAST



Do's

VS

Don'ts

- ✓ Invest in a strong network (i.e., acquire spectrum, increase densification, engage in WiFi offloading)
- ✓ Increase customer base -- focus especially on the younger, video affine demographics that consume significant amounts of mobile video
- ✓ Further strengthen P&L and balance sheet -- to allow TMUS enter into merger negotiations from a position of strength
- ✓ Consider creation of mobile-only video content (i.e. short form) that could be integrated in cablecos OTT offering
- ✓ Safeguard and further expand "sexy and innovative" T-Mobile image
- ✓ Try to establish/acquire attractive mobile ad-technology that is feasible for both mobile and cable players

- ✗ Don't decrease prices and ARPU levels too much for the sake of customer growth / as reaction to Sprint
- ✗ Don't experiment with offers that could increase churn of existing customer base
- ✗ Don't duplicate "innovative capabilities" that are already present at cablecos but lacking at TMUS
- ✗ Don't enter the wireline domain¹, i.e., own build-out, commercial whole-buy, FMS -- might make cable moves more difficult and a financial benefit unlikely

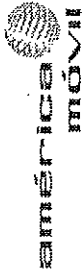
¹ Without having a long-term strategy that includes a consolidation plan
Source: Team Analysis, Expert interviews



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FOR DISCUSSION



3 PREPARE FOR AMERICA MOVIL MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



a Strategic rationale for America Movil?

- Become full-fledged US MNO (execution of AM's core business model)
- Several strategic advantages
 - Increased eyeballs (>83mn mobile subs)
 - Creation of one North American mobile service market (US, Mexico)
 - Realization of cost synergies through economies of scale and MVNO->MNO transition



d Key Do's and Don'ts to dress TMUS for optionality?

- ✓ Increase customer base
- ✓ Bid for spectrum & continue densification
- ✓ Signal Sprint as difficult asset for AM
- ✓ Signal merger interest to AM
- ✓ Ensure that any potential MVNO deal is long-term beneficial to TMUS
- ✗ Don't engage in price war (sustain ARPUs)



b Combined network effects?

- 25.7mn mobile subscribers in US via MVNO TracFone
- Merged company could have >100mn mobile subscribers by 2019¹



e Alternate brides for AM?

Sprint
If still existent and significantly stabilized



f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: Potentially better investment opportunities in other core markets (i.e., LATAM)



c Regulatory barriers?

Redaction - Privileged

¹ TMUS subscriber base forecasted to be ~76mn by 2019
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com



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"So What" for
TMUS

Potential stand-alone
exit option – if
Comcast merger not
feasible

Avoid AM + Sprint
merger (signal Sprint
as difficult target)

Signal merger
interest with AM
(ideally subsequent to
Sprint merger)

Be an attractive bride
(enhance network and
grow subs)

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FOR DISCUSSION



3 PREPARE FOR ALTICE MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE



a Strategic rationale for Altice?

- Move into mobile could be an opportunistic adjacency play for Altice (much like a PE player)



b Combined network effects?

- ~16.9mn people with Altice access in the states where TMUS has a >70% coverage¹
- ~59mn TMUS customers vs. ~3.5mn Altice TV (of which about 2.5mn in NY) and ~4mn broadband subscribers



c Regulatory barrier?

Redaction - Privileged



d Key Do's and Don'ts to dress TMUS for optionality

- ✓ Bid for spectrum & continue densification
- ✓ Increase customer base
- ✓ Signal Sprint turnaround as too challenging for Altice (given no wireless experience nor relevant synergies)
- ✓ Ensure that any potential MVNO deal is long-term beneficial to TMUS
- ✗ Don't engage in price war (sustain ARPUs)



e Potential alternate Altice targets

Sprint

If still existent and stabilized



f Deal likelihood?

- UNLIKELY : Higher synergies with fixed players (i.e., Centurylink, Frontier), Sprint much better fit for their lean turnaround playbook

Low

High

"So What" for TMUS

Be attractive bride by investing in network strength and growth of subscriber base

Avoid Altice + Sprint merger (signal Sprint as too challenging to turn around)

¹ Percent of the population with T-Mobile wireless access in that geography
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com



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5 DON'TS TO MAINTAIN 2018+ MERGER OPTIONS

FOR DISCUSSION



Don't enter into MVNO deal that could complicate consolidation
(Deals should increase TMUS value)



Don't trigger a price war in the US market
(Stable ARPUs base drives attractiveness & valuation)



Redaction - Privileged



Don't invest in asset heavy media, i.e., content rights or production
(Lack of scale for TMUS and unlikely return on capital)



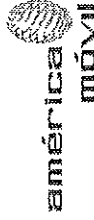
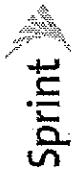
Don't enter the wireline domain¹, i.e., own build-out, whole-buy, FMS
(Might make cable moves more difficult + financial benefit unlikely)

¹ Without having a long-term strategy that includes a consolidation plan
Source: Team Analysis



LIFE IS FOR SHARING.

Key partner/
merger options



- Strictly Confidential - 32

Page 1

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

STATE OF NEW YORK, STATE OF)
CALIFORNIA, STATE OF COLORADO,)
STATE OF CONNECTICUT, DISTRICT)
OF COLUMBIA, STATE OF)
MARYLAND, STATE OF MICHIGAN,) 1:19-cv-05434 (VM)
STATE OF MISSISSIPPI,)
COMMONWEALTH OF VIRGINIA, and)
STATE OF WISCONSIN,)
Plaintiffs,)
-against-)
DEUTSCH TELECOM AG, T-MOBILE)
US, INC., SPRINT CORPORATION)
and SOFTBANK GROUP CORP.,)
Defendants.)

VIDEOTAPED DEPOSITION UPON ORAL EXAMINATION OF

PETER EWENS

HIGHLY CONFIDENTIAL

9:04 A.M.

SEPTEMBER 12, 2019

925 FOURTH AVENUE, SUITE 2900

SEATTLE, WASHINGTON

REPORTED BY: CARLA R. WALLAT, CRR, RPR, CCR 2578

<p style="text-align: right;">Page 42</p> <p>1 takes place, DISH will only be able to provide service 2 to its own customers initially by sharing the T-Mobile 3 network, right? 4 MS. LEVIN: Objection. 5 A. DISH is not sharing in a network sharing 6 arrangement with T-Mobile. DISH has a 7 infrastructure-based MVNO with T-Mobile. 8 Q. (BY MR. MACH) But in terms of providing 9 service to its customers, DISH will not have its own 10 network, correct? 11 A. DISH initially will not have its own network, 12 but is committed to build a network. 13 Q. Right. That's a fair clarification. 14 Initially DISH will not have its own network, correct? 15 A. That's correct. 16 Q. So it must rely on T-Mobile's network to serve 17 its customers, correct? 18 A. That's correct. 19 Q. Okay. So T-Mobile -- strike that. 20 So DISH will not have a basis for network 21 differentiation with T-Mobile, right? 22 MS. LEVIN: Objection. 23 A. DISH will be using T-Mobile's network 24 initially. That's absolutely right. But over time, 25 they will build their own network and they will have an</p>	<p style="text-align: right;">Page 44</p> <p>1 with in those workshops included people you really 2 trust, right? 3 MS. LEVIN: Objection. 4 A. At least one of the persons I knew well and I 5 respected. 6 Q. (BY MR. MACH) And you really trusted him, 7 right? 8 A. That's correct. 9 Q. And who was that person? 10 A. Peter Bisson. 11 Q. And you personally assisted DT employees in 12 the preparation of the materials for those discussion 13 workshops in December 2015, right? 14 A. No, I did not. Those materials were 15 prepared -- to my recollection, those materials were 16 prepared by McKinsey for DT. 17 Q. Well, my question, sir, was not whether you 18 prepared the materials, but whether you personally 19 assisted the DT employees in the preparation of the 20 materials. Did you do that? 21 A. No, I did not. I don't recall. I think I was 22 sent the documents pretty much near the end in advance 23 of the workshops. 24 MR. MACH: Introduce a document that 25 will be Ewens Exhibit 58.</p>
<p style="text-align: right;">Page 43</p> <p>1 opportunity to combine, uniquely combine those networks 2 and offer differentiated services. 3 Q. (BY MR. MACH) And the agreement that you have 4 with DISH, it places a specific limit on how much of 5 T-Mobile's network DISH can use to serve its own 6 customers, right? 7 MS. LEVIN: Objection. 8 A. The -- the agreement with DISH actually allows 9 DISH unlimited access to the T-Mobile network for the 10 first three years. Thereafter, there are limits on 11 Dish's ability to use the network, but the whole 12 strategy is for DISH to begin to -- to build their own 13 network and begin to migrate traffic to their own 14 facilities. 15 Q. (BY MR. MACH) Let's shift gears a little bit. 16 In December 2015, you took part in a series of 17 discussion workshop -- workshops with DT, correct? 18 A. Yes, I did. 19 Q. And those workshops included participants from 20 T-Mobile, DT and also McKinsey, correct? 21 A. Yes, they did. 22 Q. You've worked with McKinsey a number of times 23 at T-Mobile, right? 24 A. Yes, I have. 25 Q. And the team from McKinsey that you worked</p>	<p style="text-align: right;">Page 45</p> <p>1 (Deposition Exhibit 58 was marked for 2 identification.) 3 MR. MACH: I'm sorry, I can't reach it. 4 MS. LEVIN: That's all right. 5 Q. (BY MR. MACH) Sir, do you recognize what's 6 been marked as Ewens Exhibit 58 as an email thread 7 between you and Mr. Stern of DT in November of 2015? 8 MS. LEVIN: Objection. 9 A. I'm sorry, can you repeat the question? 10 Q. (BY MR. MACH) Sure. I'll -- I'll strike the 11 question and ask it again. 12 Do you recognize Ewens Exhibit 58 as an email 13 thread between you and Mr. Stern, among others, in -- 14 in November of 2015? 15 A. Yes, I do. 16 Q. And is this something you would have created 17 in the ordinary course of your business? 18 A. Yes. 19 Q. Okay. And this thread discusses preparations 20 for the workshops you participated in with DT in 21 December 2015, right? 22 A. That's correct. 23 Q. And Mr. Stern at the time was the VP of 24 portfolio strategy for DT, correct? 25 A. I don't remember his title, but that sounds</p>

12 (Pages 42 - 45)

<p style="text-align: right;">Page 46</p> <p>1 plausible.</p> <p>2 Q. And in this email thread, Mr. Stern wrote</p> <p>3 asking for your assistance in preparing materials for</p> <p>4 the workshops, right?</p> <p>5 MS. LEVIN: Objection.</p> <p>6 A. Can I look at the email?</p> <p>7 Q. (BY MR. MACH) Absolutely.</p> <p>8 A. Yeah, in this email, Mr. Stern requests</p> <p>9 materials that we -- from the U.S. and he also requests</p> <p>10 time for an interview to learn more about a series of</p> <p>11 questions.</p> <p>12 Q. An interview with you?</p> <p>13 A. I believe the interview was with Sarah Bond.</p> <p>14 Q. And the top email in the thread on the page</p> <p>15 that ends 99484 has Mr. Stern saying "Looking forward</p> <p>16 to the call tomorrow."</p> <p>17 Do you see that, sir?</p> <p>18 A. Yes.</p> <p>19 Q. And did you hold a call with Mr. Stern about</p> <p>20 the workshops as suggested in this thread?</p> <p>21 A. Yes, I believe we did.</p> <p>22 Q. And what did you discuss with Mr. Stern on</p> <p>23 that call?</p> <p>24 A. I don't recall all the questions we discussed.</p> <p>25 This -- there looks to be a question outline in this</p>	<p style="text-align: right;">Page 48</p> <p>1 A. Yes, I did.</p> <p>2 Q. Okay. I'm going to ask the court reporter to</p> <p>3 please mark Exhibit 59.</p> <p>4 (Deposition Exhibit 59 was marked for</p> <p>5 identification.)</p> <p>6 Q. (BY MR. MACH) Do you have Exhibit 59 in front</p> <p>7 of you, sir?</p> <p>8 A. Yes, I do.</p> <p>9 Q. And do you recognize Exhibit 59 as the slide</p> <p>10 deck that was used in the first workshop -- workshop</p> <p>11 session in Germany in 2015?</p> <p>12 A. Yes, I do.</p> <p>13 Q. And that's something that was created in the</p> <p>14 normal course of your business, right?</p> <p>15 MS. LEVIN: Objection.</p> <p>16 A. This was created by Deutsche Telekom. And I</p> <p>17 don't know whether it was created in their normal</p> <p>18 course of business or not.</p> <p>19 Q. (BY MR. MACH) Fair enough.</p> <p>20 Would you please turn to me -- with me to the</p> <p>21 slide that's marked 4, it's Bates Number ending</p> <p>22 00999374.</p> <p>23 This slide lays out the objectives for the</p> <p>24 first meeting, correct -- strike that. Sorry.</p> <p>25 This slide lays out the objectives for the two</p>
<p style="text-align: right;">Page 47</p> <p>1 email.</p> <p>2 Q. Do you remember any of the questions you</p> <p>3 discussed?</p> <p>4 A. I do not.</p> <p>5 Q. You then participated in the first workshop --</p> <p>6 strike that. Let's take a step back.</p> <p>7 Does this refresh your recollection that you</p> <p>8 personally assisted DT employees in the preparation of</p> <p>9 the materials for the December 2015 discussion</p> <p>10 workshops in Germany?</p> <p>11 MS. LEVIN: Objection.</p> <p>12 A. What we did is we provided information to them</p> <p>13 and we participated in I believe at least one call</p> <p>14 where they had asked us questions, but we did not have</p> <p>15 a hand in preparing the documents for the workshop at</p> <p>16 all.</p> <p>17 Q. (BY MR. MACH) Got it.</p> <p>18 You provided input to DT and they wrote the</p> <p>19 documents. Is that fair?</p> <p>20 A. Yes, we provided information and tried to be</p> <p>21 responsive to questions, but we did not have a hand in</p> <p>22 preparing the documents at all.</p> <p>23 Q. Thank you.</p> <p>24 You then participated in the first workshop</p> <p>25 session in Germany on December 3rd, 2015, right?</p>	<p style="text-align: right;">Page 49</p> <p>1 workshops, right, sir?</p> <p>2 A. Yes, that's what this slide appears to do.</p> <p>3 Q. And the next page shows the participants for</p> <p>4 the first meeting, right?</p> <p>5 A. These were the participants that were invited,</p> <p>6 but I don't believe everybody was there.</p> <p>7 Q. So who wasn't there?</p> <p>8 A. I don't recall, but the meeting was much, much</p> <p>9 smaller. This is a long list of participants and --</p> <p>10 well, these are the experts at the meeting. I don't</p> <p>11 recall all the people who were there, but we -- you</p> <p>12 know, Thorsten, for example, wasn't in the whole</p> <p>13 meeting. We may have had one or two other people, but</p> <p>14 this wasn't -- this wasn't the exact set of</p> <p>15 participants.</p> <p>16 Q. So I'm looking at slide 5. Are you looking at</p> <p>17 slide 5?</p> <p>18 A. Yes.</p> <p>19 Q. Okay. And it shows six individuals, including</p> <p>20 you, Mr. Stern, Mr. Langheim.</p> <p>21 A. Yes.</p> <p>22 Q. And Mr. Langheim was present for at least some</p> <p>23 of the meetings, correct?</p> <p>24 A. There were two workshops. Mr. Langheim was</p> <p>25 present for part of at least one of the meetings, but I</p>

13 (Pages 46 - 49)

<p style="text-align: right;">Page 58</p> <p>1 Q. Well, it has proven true since 2015 that new 2 mobile entrants have not become relevant players in 3 your marketplace, hasn't it? 4 MS. LEVIN: Objection. 5 A. Actually, I disagree with that. I believe 6 cable companies have entered and they've become 7 relevant mobile players. So I don't actually agree 8 that your statement is true. 9 Q. (BY MR. MACH) So in 2015 when these 10 predictions were laid -- strike that. Excuse me. 11 Since 2015 when these predictions were laid 12 out, your predictions about how the market would evolve 13 have proven wrong? 14 MS. LEVIN: Objection. 15 Q. (BY MR. MACH) Is that what you're saying? 16 MS. LEVIN: Objection. It 17 mischaracterizes the testimony. 18 A. These are not my -- these are not my 19 predictions of how the U.S. market would evolve. As I 20 told you before, this is a DT prepared document and 21 some things I might agree with and other things I 22 don't. But these are not my predictions of how the 23 U.S. market would evolve. 24 Q. (BY MR. MACH) Today or in 2015? 25 A. In 2015.</p>	<p style="text-align: right;">Page 60</p> <p>1 statement. 2 Q. (BY MR. MACH) Well, what's the connection 3 between commercially rationale contracts and the 4 ability of a new entrant to compete? 5 MS. LEVIN: Objection. 6 A. I don't know what you mean by "commercially," 7 and I know -- I don't know what this document means by 8 "commercially rationale contract." 9 Q. (BY MR. MACH) Okay. And in the right-hand 10 side of -- side of that slide there's a box and it says 11 "So what for TMUS." 12 Do you see that, sir? 13 A. Yes. 14 Q. That's T-Mobile US, right? 15 A. That's correct. 16 Q. Okay. And the conclusion was "Emergence of 17 MVNO entrants unlikely," correct? 18 A. That's what the document says. 19 Q. Well, was that the view that DT expressed to 20 you in 2015? 21 A. I don't recall. I don't recall discussing 22 this specific page. What the document says is 23 "Emergence of MVNO entrants unlikely," but I don't 24 recall that specific discussion from the workshop. 25 Q. A few more questions about this document.</p>
<p style="text-align: right;">Page 59</p> <p>1 Q. Okay. So you're saying that in 2015, you 2 thought that this document was incorrect about trend 3 Number 1? 4 A. In 2015, I don't have a particular view, and I 5 can't tell you which statement in 2015 I agreed with 6 or -- or I didn't agree with. What I can tell you is 7 these are DT's predictions, or appear to be DT's 8 predictions as encapsulated in this document, and I 9 probably agreed with some of them but didn't 10 necessarily agree with all of them. 11 Q. Understood. Thank you. 12 Turn with me, please, to slide 24. I'm just 13 hoping you can help me understand this. In the middle 14 of the slide it says "U.S. MVNO agreements based on 15 commercial terms. All four mobile players will 16 continue to engage in commercially rationale 17 contracts." 18 Do you see that? 19 A. Yes, I do. 20 Q. Okay. What does that mean? 21 MS. LEVIN: Again, Mr. Ewens, if you 22 want to look at the whole slide, you're welcome to do 23 that. 24 A. Yeah, I don't know exactly what this means. 25 Again, this is a DT document and this is a DT</p>	<p style="text-align: right;">Page 61</p> <p>1 Slide 33, please. And slide 33 discusses industry 2 consolidation, right? 3 A. Yes. 4 Q. Including the potential merger of T-Mobile and 5 Sprint, correct? 6 A. That's what the document says. 7 Q. And regarding the T-Mobile Sprint merger, the 8 slide says: "Regulatory approval on short-term regarded 9 as unlikely." 10 Do you see that, sir? 11 MS. LEVIN: I'm sorry, could you direct 12 us to that? 13 A. I'm sorry, can you point that -- to that -- 14 point me to that. 15 Q. (BY MR. MACH) That is a totally reasonable 16 question. In the box on the right-hand side of the 17 slide, the first bullet says: "Sprint merger as 18 natural strategic step to obtain nationwide scale - 19 however, regulatory approval on short-term regarded as 20 unlikely." 21 Do you see that, sir? 22 A. I do. 23 Q. So why was regulatory approval of the T-Mobile 24 and Sprint merger regarded as unlikely in 2015? 25 MS. LEVIN: Objection.</p>

16 (Pages 58 - 61)

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<p style="text-align: right;">Page 62</p> <p>1 A. As I say, this is not my document, this is 2 DT's document. And I don't know where they developed 3 those points of view, but it is not necessarily my 4 point of view at the time. 5 Q. (BY MR. MACH) Well, did -- did you agree with 6 that point of view in 2015? 7 A. I don't recall whether I agreed with that 8 point of view or not. 9 Q. And did DT express to you any reason why 10 regulatory approval might be unlikely? 11 A. No, I don't recall. 12 Q. Now -- 13 MS. LEVIN: I'm sorry, was that question 14 about 2000- -- strike that. I withdraw my question. 15 Q. (BY MR. MACH) If we go to the left-hand side 16 of slide 33, the last bullet in the Mobile category 17 there, it says "Dish's massive spectrum could leave -- 18 lead to mid-term spectrum deal." 19 Do you see that? 20 A. Yes, I do. 21 Q. What does that mean? 22 MS. LEVIN: Objection. 23 A. Well, I presume that means that there was at 24 least a possibility to discuss purchasing spectrum from 25 DISH.</p>	<p style="text-align: right;">Page 64</p> <p>1 to there would be T-Mobile, AT&T and Verizon, correct? 2 A. Yeah, I think the -- the only issue is that 3 would be three -- maybe it should say three -- three -- 4 three network owners, but -- but yes. 5 Q. Let's go to the next slide, please. Slide 35. 6 MS. LEVIN: 34 or 35? 7 MR. MACH: 35. That's helpful. 8 Q. (BY MR. MACH) And in the upper left-hand 9 corner of the slide, it says "Still no mobile wholesale 10 obligation, thus no new disruptive market enters 11 (MVNOs)." 12 Do you see that, sir? 13 A. Yes, I do. 14 Q. What does that mean? 15 MS. LEVIN: Objection. 16 A. Again, this is DT's document. So you'd -- you 17 know, you'd have to ask them exactly what they meant by 18 that. 19 Q. (BY MR. MACH) Well, what did it mean to you 20 when you had the document in the meeting with DT in 21 2015? 22 A. Well, firstly I don't know that we discussed 23 this page specifically. But I do -- one difference 24 between the U.S. and Europe is in Europe you have 25 mandated and prescribed wholesale rates for MVNOs. Or</p>
<p style="text-align: right;">Page 63</p> <p>1 Q. (BY MR. MACH) When it says "mid-term 2 spectrum," can you help me understand what the phrase 3 "mid-term spectrum" means? Mid -- I'm sorry, excuse 4 me. Could you help me understand what "mid-term" means 5 in that bullet? 6 A. I don't know what DT specifically had in mind, 7 but I would presume that would mean over the course of 8 a handful of years. 9 Q. In that same Mobile category there, it says 10 "Regulator unlikely to allow emergence of three-player 11 mobile market." 12 Do you see that? 13 A. I'm sorry, where? 14 Q. It's the second bullet in the Mobile category 15 on the left-hand side of the slide. 16 A. Yes, I do. 17 Q. And there when it's talking about the 18 emergence of a three-player mobile market, that's 19 talking about the results of a potential merger between 20 T-Mobile and Sprint, correct? 21 MS. LEVIN: Objection. 22 A. I don't know exactly what it's referring to, 23 but that seems -- seems what it's referring to in the 24 document. 25 Q. (BY MR. MACH) And the three players referred</p>	<p style="text-align: right;">Page 65</p> <p>1 you did at the time. 2 Q. In -- in which market? 3 A. I don't recall, but at least in some markets 4 in Europe. 5 Q. Yeah. My point is not the U.S. market, right? 6 A. That's correct. 7 Q. So do you understand this to be saying unless 8 there is that type of wholesale obligation in the 9 United States, there will not be disruptive MVNO market 10 entries? 11 MS. LEVIN: Objection. 12 A. I don't -- as I say, I don't know what DT 13 meant. What I can tell you is there are MVNOs in the 14 U.S. market that are disruptive. Altice just entered 15 the market with a very disruptive price point. Comcast 16 under the Xfinity mobile brand is an MVNO. And up 17 until Altice entered, they had the lowest priced 18 unlimited single line post paid plan. 19 Q. (BY MR. MACH) Let's go to slide 40, please, 20 and we're almost done with this long document. 21 MS. LEVIN: And might we take a break 22 after we're done? 23 MR. MACH: Absolutely. 24 Q. (BY MR. MACH) Are you with me on slide 40, 25 sir?</p>

17 (Pages 62 - 65)

<p style="text-align: right;">Page 82</p> <p>1 means, but one possibility is that if we were able to 2 combine with DISH and utilize all that spectrum, it 3 would provide us with dramatically more capacity, and 4 so we would need to evaluate that as a potential 5 option. 6 Q. Does -- does looking at Ewens Exhibit 62 7 refresh your recollection that you insisted -- you 8 assisted in the preparation of materials for the second 9 workshop in Germany? 10 A. We didn't prepare the materials for the second 11 workshop in Germany. We may have been responsive to 12 DT's questions, but those materials were prepared by 13 DT. 14 Q. That's fair, and I -- I'm -- I just want to -- 15 want to hone in on the distinction that you're making. 16 Mr. Stern prepared the materials for the 17 meeting; is that correct? 18 MS. LEVIN: Objection. 19 A. I don't know who prepared the meetings [sic] 20 for that. 21 Q. (BY MR. MACH) Okay. In any case, you 22 provided information to Mr. Stern that DT could use to 23 prepare the materials for the meeting; is that 24 accurate? 25 MS. LEVIN: Objection.</p>	<p style="text-align: right;">Page 84</p> <p>1 that the slide deck used in the second session, 2 workshop session was a good document? 3 A. I said the email says I think the document is 4 okay. I don't know what you mean by a good deck. 5 Q. Well, I'll introduce an exhibit. 6 MR. MACH: I'll ask the court reporter 7 to please mark this as Ewens Exhibit 63. 8 (Deposition Exhibit 63 was marked for 9 identification.) 10 MR. MACH: And I'm going to 11 simultaneously introduce what will be Ewens Exhibit 64. 12 (Deposition Exhibit 64 was marked for 13 identification.) 14 Q. (BY MR. MACH) Do you have Exhibits 63 and 64 15 in front of you, sir? 16 A. I do. 17 MS. LEVIN: Which is which, sir? 18 MR. MACH: I will clarify that. 19 MS. LEVIN: Thank you. 20 MR. MACH: Oh, you mean in front of you. 21 So Exhibit 63 is the document that's also marked 22 Ewens CID Exhibit 42. And Exhibit 64 is the document 23 labeled TMUS-LIT-00198721. 24 MS. LEVIN: Thank you. 25 Q. (BY MR. MACH) Now, let's start with</p>
<p style="text-align: right;">Page 83</p> <p>1 A. I don't recall whether we provided information 2 for the second workshop, but as we discussed, we did 3 provide information that was responsive to DT's 4 questions that they had in advance of the first 5 workshop. I don't know what other information was 6 provided or not provided between the first workshop and 7 the second workshop. 8 Q. (BY MR. MACH) Thank you, sir. 9 You thought that the slide deck that was 10 prepared for the second workshop was a good document, 11 right? 12 MS. LEVIN: Objection. 13 A. What the email says is "I think doc okay." 14 And what I meant by that was I think that the 15 document would probably serve to tee up some of the 16 major topics. I did not provide a detailed or do a 17 detailed review of the document, and I certainly didn't 18 have time to engage -- I was very busy at the time and 19 I didn't have time to engage in a word-by-word review 20 of the document or to get into a battle with DT about 21 the document. It was ultimately their document and I 22 thought for the purposes of at least starting the 23 discussion, the document was okay. 24 Q. (BY MR. MACH) So I appreciate the 25 explanation, sir, but my question is did you believe</p>	<p style="text-align: right;">Page 85</p> <p>1 Exhibit 63. Do you recognize this as an email exchange 2 between you and Mr. Stern attaching a PowerPoint 3 presentation in December of 2015? 4 A. Yes, I do. 5 Q. And Exhibit 63 is something that would have 6 been created in the ordinary course of your business, 7 correct, sir? 8 MS. LEVIN: Objection. 9 A. The email would have been created in the 10 ordinary course. If Exhibit 63 includes this document, 11 we didn't -- didn't create that in our ordinary course. 12 Q. (BY MR. MACH) Thank you for the 13 clarification. 14 So the email would have been something you 15 would have created in your ordinary course, but 16 receiving materials like the attachment that you 17 received from Deutsche Telekom was a relatively common 18 occurrence for you in your position at DT; is that 19 true? 20 MS. LEVIN: Objection. 21 A. I can't say one way or another. I mean, we 22 had a very specific agreement that I would participate 23 in the workshop and that they would send me the 24 document ahead of time. 25 MR. MACH: So a little bit of</p>

22 (Pages 82 - 85)

<p style="text-align: right;">Page 86</p> <p>1 housekeeping. The PowerPoint presentation that's 2 attached to Exhibit 63 is redacted. Exhibit 64 is an 3 unredacted version of a PowerPoint that I understand to 4 be the same document as the one that is attached to 5 Exhibit 63. And I just would ask counsel to verify 6 that they have the same understanding that those 7 documents -- those PowerPoint decks, the one attached 8 to 63 and the one that is 64, are the same. 9 MS. LEVIN: Yes, we have the same 10 understanding. 11 MR. MACH: Thank you. 12 Q. (BY MR. MACH) You don't have any reason to 13 doubt that, do you, sir? 14 A. I do not. 15 Q. Okay. So let's take a look at the front of 16 Exhibit 63. You received the slide deck that is 17 Exhibit 64 from Mr. Stern, right, sir? 18 A. Yes, that's correct. 19 Q. And you told Mr. Stern "good document," right? 20 A. That's correct. 21 Q. Okay. 22 A. But again, what I really wanted to -- the 23 focus here was not on a page-by-page review, but 24 basically do we have a document that could serve as a 25 jumping off point for a workshop discussion.</p>	<p style="text-align: right;">Page 88</p> <p>1 don't get sidetracked here. 2 Here you list AT&T, Verizon and Sprint, right, 3 among others? 4 MS. LEVIN: Objection. 5 A. Correct. 6 Q. (BY MR. MACH) And this slide deck -- 7 A. I should -- just -- I should clarify that. I 8 don't list them; DT lists them. 9 Q. That's a fair clarification. Thank you, sir. 10 And this slide discusses competitive dynamics 11 over the next two to three years, correct? 12 A. Yes, that's what I read the slide to discuss. 13 Q. Okay. And going back to your previous note -- 14 I'll strike that. 15 Now, let's look at AT&T. The prediction that 16 you received from DT was that AT&T would not engage in 17 price reductions, right? 18 A. What this -- this slide says "No price 19 reductions and unlikely to initiate FMC race (if 20 somehow unavoidable)." 21 That's what's written on the slide. 22 Q. And in the box below that, DT conveyed to you 23 that Verizon had the incentive to keep the market as is 24 and be the last one to reduce prices, right? 25 A. I'm sorry, what the slide says is "Incentive</p>
<p style="text-align: right;">Page 87</p> <p>1 MR. MACH: I'll move to strike that as 2 nonresponsive. You don't need to worry about that, 3 sir. 4 Q. (BY MR. MACH) Okay. If you would, please, 5 turn with me to Exhibit 64, we will work with that, and 6 I think you can set 63 aside for now just to keep 7 things organized. 8 This was the slide deck that was used for 9 session 2 of your meetings in Germany in 2015, correct? 10 A. Yeah. Again, this was a slide deck that was 11 furnished at the beginning of the meeting, but I don't 12 have a specific recollection of how much of this 13 workshop we actually followed the deck or whether we 14 had a different, you know, or related discussion. 15 Q. Well, when you sat down for workshop 2 with DT 16 in December of 2015, you had this slide deck in front 17 of you, correct? 18 A. We did at the beginning of the workshop. 19 Q. So let's turn first to slide 6. Are you with 20 me, sir? 21 A. I am. 22 Q. And there are three MNO competitors listed on 23 this slide, right, sir? 24 A. Can you define "MNO"? 25 Q. Well, I'll strike that the question so we</p>	<p style="text-align: right;">Page 89</p> <p>1 to keep market as is - last one to reduce prices (given 2 customer base and premium position) or join FMC (given 3 wireless focus)." 4 Q. And -- and whereas DT conveyed that Sprint was 5 likely to continue to engage in aggressive pricing, 6 correct? 7 A. I don't know what you mean by "DT conveyed." 8 What the slide says is "Focus on turnaround to avoid 9 bankruptcy (aggressive pricing to continue)." 10 Q. Well, the slide was prepared by DT and sent to 11 you, right? 12 A. That's correct. 13 Q. And then at the top, in gray lettering, it 14 said "Potential pressure for price reduction if Sprint 15 recovers." 16 Do you see that? 17 A. Yes. 18 Q. What does that mean? 19 MS. LEVIN: Objection. 20 A. I don't know what this means. This -- again, 21 this is DT's document; this is not my document. 22 Q. (BY MR. MACH) Well, to be clear, I'm not 23 asking what DT meant, I'm asking what -- what it meant 24 to you when you received the document? 25 A. I mean, presumably it means that this</p>

23 (Pages 86 - 89)

<p style="text-align: right;">Page 94</p> <p>1 Q. Okay. And in evaluating the Sprint deal, DT 2 conveyed to you that four-to -- four-to-three 3 consolidation was in the interest of all mobile 4 players. Do you recall that?</p> <p>5 MS. LEVIN: Objection.</p> <p>6 A. I don't recall the specific conversation that 7 was relayed to me.</p> <p>8 Q. (BY MR. MACH) Would you turn with me to 9 slide 22, please.</p> <p>10 Do you see where it says "Deal likelihood"?</p> <p>11 A. Can I take a minute to read the slide?</p> <p>12 Q. Of course, yes.</p> <p>13 A. Yes, I see that.</p> <p>14 Q. Okay. And what did you understand DT to 15 conveying to you when it -- they said, "Market 16 structure calls for consolidation, four to three in the 17 interest of all mobile players"?</p> <p>18 A. I don't understand what they meant. And 19 again, I can't say that we -- I don't recall going 20 through this slide specifically. I don't know what 21 "market structure calls for consolidation" means.</p> <p>22 Q. Well, Mr. Langheim had expressed to you that 23 he thought it important to take the market from four to 24 three, right?</p> <p>25 A. I think if you go back to the previous emails,</p>	<p style="text-align: right;">Page 96</p> <p>1 Q. (BY MR. MACH) Can you, as you sit here today, 2 can you think of any ways in which four-to-three 3 consolidation could be in the interest of all mobile 4 players?</p> <p>5 MS. LEVIN: Objection.</p> <p>6 A. Look, I think -- as I say, the outcome of 7 four-to-three consolidation depends dramatically on the 8 market and the competitive positions of all the 9 players. So it's certainly a possible outcome, but 10 it's by no -- by no means a -- an ordained outcome or 11 necessary outcome.</p> <p>12 Q. (BY MR. MACH) It's hard to predict the 13 outcome, would you agree with that?</p> <p>14 A. I'd say predicting the outcome depends on 15 having a lot more knowledge about the market, the 16 market structure, competitive dynamics. There are 17 many, many factors that go into the resulting 18 competitive positions of players.</p> <p>19 Q. Now, slightly above that on the same slide it 20 says "Key do's and don'ts to realize TMUS plus Sprint 21 merger."</p> <p>22 Do you see that?</p> <p>23 A. Yes.</p> <p>24 Q. Did you discuss these key do's and don'ts with 25 DT?</p>
<p style="text-align: right;">Page 95</p> <p>1 Mr. Langheim had expressed to me the idea that four -- 2 going -- for the market from four to three might be an 3 option, you know, if -- if you thought that 4 commoditization was such that you wouldn't be able to 5 earn a return on capital. I think Mr. Langheim 6 conveyed to me that he thought four to three might be 7 an option.</p> <p>8 Q. So do you understand how consolidation from 9 four players to three could be in the interest of all 10 mobile players?</p> <p>11 A. It's not -- I don't necessarily agree that 12 four to three is in the interest of all mobile players. 13 Four-to-three consolidation has to be evaluated 14 separately for each market and for each mobile player.</p> <p>15 Q. Well, I appreciate that. My question is a 16 little bit different. And that is, did you understand 17 DT's rationale for the statement that four to three was 18 in the interest of all mobile players?</p> <p>19 MS. LEVIN: Objection.</p> <p>20 A. I'm not sure I really fully understood DT's 21 rationale, but this -- this is what the document says 22 and this is DT's document. But the rationale and the 23 conclusion about why that's in the interest of all 24 mobile players, I think is -- you know, I think -- I 25 don't fully understand what DT means by that.</p>	<p style="text-align: right;">Page 97</p> <p>1 A. I don't recall.</p> <p>2 Q. It says "Do not overplay offending 3 consolidation stakeholders."</p> <p>4 Do you see that?</p> <p>5 A. Yes.</p> <p>6 Q. What did that mean to you, sir?</p> <p>7 A. I don't know. It's not even a grammatically 8 correct English sentence.</p> <p>9 Q. It then says "Do not follow Sprint in price 10 wars or irrational MVNO deals (sustain ARPUs)."</p> <p>11 Do you see that?</p> <p>12 A. Yes.</p> <p>13 Q. What does that mean to you when you received 14 this deck?</p> <p>15 A. I think what it meant to me was a DT idea that 16 we shouldn't follow Sprint into price wars, but as a 17 general matter, DT doesn't actually set our pricing, we 18 set our pricing independently. We set our pricing 19 based on what we believe we need to compete and gain 20 share.</p> <p>21 Q. At the top of that list it says, as a do and 22 don't, it says "Strengthen lobbying activities for 23 four-to-three merger with the right people in 24 Washington."</p> <p>25 Do you see that, sir?</p>

25 (Pages 94 - 97)

<p style="text-align: right;">Page 98</p> <p>1 A. Yes, I do.</p> <p>2 Q. What did that mean to you?</p> <p>3 A. I don't know what that means to me. I don't</p> <p>4 have any -- any connection with any lobbying</p> <p>5 activities. I don't really have any knowledge of that</p> <p>6 topic.</p> <p>7 Q. Well, did Sprint -- strike that.</p> <p>8 Did T-Mobile strengthen its lobbying</p> <p>9 activities for a four-to-three merger to increase the</p> <p>10 probability of approval of its merger with Sprint?</p> <p>11 MS. LEVIN: Objection.</p> <p>12 A. I don't know. I'm not involved in those</p> <p>13 topics at all.</p> <p>14 MR. MACH: What's the basis for the</p> <p>15 objection, Counsel?</p> <p>16 MS. LEVIN: I'm just curious about</p> <p>17 the -- the ambiguity around what lobbying activities</p> <p>18 means and how you would lobby about a four-to-three</p> <p>19 merger.</p> <p>20 MR. MACH: Okay.</p> <p>21 Q. (BY MR. MACH) Just going back really quickly</p> <p>22 to where it says "Do not overplay offending</p> <p>23 consolidation stakeholders," I know we asked about that</p> <p>24 already.</p> <p>25 Would you take a look at the footnote that's</p>	<p style="text-align: right;">Page 100</p> <p>1 A. Can you repeat the question?</p> <p>2 Q. Why don't I break it up so it's not such a</p> <p>3 confusing question: I'll withdraw it.</p> <p>4 You regularly evaluate opportunities to be the</p> <p>5 buyer in M&A -- for M&A opportunities. Is that fair?</p> <p>6 A. Yes, I think that's fair.</p> <p>7 Q. And you also evaluate opportunities where you</p> <p>8 might be acquired in an M&A transaction. Is that fair?</p> <p>9 A. Do you mean the acquisition of T-Mobile as a</p> <p>10 whole or specific assets from T-Mobile?</p> <p>11 Q. Both.</p> <p>12 A. Well, as a general matter, at T-Mobile US, we</p> <p>13 don't particularly engage in looking at opportunities</p> <p>14 to sell the whole company. That's really DT's</p> <p>15 province.</p> <p>16 Q. Fair enough.</p> <p>17 In your view, might you need to combine with a</p> <p>18 company -- strike that.</p> <p>19 In your view, is it possible that you need to</p> <p>20 combine with another company in order to be successful</p> <p>21 in the marketplace?</p> <p>22 MS. LEVIN: Objection.</p> <p>23 A. Look, as a general matter when we look at M&A,</p> <p>24 we look at the specifics of each M&A opportunity, and</p> <p>25 we don't generalize and say we -- you know, we have to</p>
<p style="text-align: right;">Page 99</p> <p>1 attached to that and read that for me to yourself.</p> <p>2 Where it says "consolidation stakeholders,"</p> <p>3 the footnote reads --</p> <p>4 A. Yes.</p> <p>5 Q. FCC, DOJ, unions, AT&T, Verizon. That's what</p> <p>6 that means, right?</p> <p>7 A. That's what the footnote says.</p> <p>8 Q. Okay. So why was it important to avoid</p> <p>9 offending AT&T and Verizon if you wanted to merge with</p> <p>10 Sprint?</p> <p>11 MS. LEVIN: Objection.</p> <p>12 A. I have no idea. This is DT's -- as I said</p> <p>13 before, this is DT's document. I don't actually even</p> <p>14 know what this says. It's not a correct English</p> <p>15 translation or translation in English. So I don't</p> <p>16 really know.</p> <p>17 Q. (BY MR. MACH) Based on the materials, it</p> <p>18 looks like T-Mobile regularly looks for M&A</p> <p>19 opportunities. Is that a fair statement?</p> <p>20 MS. LEVIN: Objection.</p> <p>21 A. I would -- I would say we look at M&A</p> <p>22 opportunities from time to time.</p> <p>23 Q. (BY MR. MACH) And that includes opportunities</p> <p>24 to be the buyer, but also includes the possibility that</p> <p>25 T-Mobile could be acquired, right?</p>	<p style="text-align: right;">Page 101</p> <p>1 look at each and every opportunity separately and</p> <p>2 figure out how those opportunities might contribute to</p> <p>3 our success.</p> <p>4 Q. (BY MR. MACH) Right. My question is it's</p> <p>5 entirely possible that T-Mobile would conclude that it</p> <p>6 has an M&A opportunity and it needs to take that</p> <p>7 opportunity in order to be successful in the</p> <p>8 marketplace, right?</p> <p>9 A. I think it's entirely possible that T-Mobile</p> <p>10 could conclude that taking an M&A opportunity would</p> <p>11 allow it to be more successful in the marketplace than</p> <p>12 not taking that opportunity.</p> <p>13 Q. Thank you, sir.</p> <p>14 And is it important from a competitive</p> <p>15 perspective for T-Mobile to have flexibility to engage</p> <p>16 in that type of M&A activity if the opportunity arises?</p> <p>17 MS. LEVIN: Objection.</p> <p>18 A. Can you refine your question or can you</p> <p>19 rephrase your question?</p> <p>20 Q. (BY MR. MACH) Yeah. Is it important for</p> <p>21 T-Mobile to have flexibility to engage in M&A</p> <p>22 opportunities if the need arises?</p> <p>23 A. I think it's important for us to continue to</p> <p>24 evaluate M&A opportunities. If M&A opportunities are</p> <p>25 above \$75 million, then we absolutely need to partner</p>

26 (Pages 98 - 101)

From: Ewens, Peter </O=WESTERN WIRELESS CORP/OU=PCS/CN=USER
ACCOUNTS/CN=FINANCE/CN=WANEWPORT/CN=PEWENS>
To: Bond, Sarah; Sridharan, Balaji
Sent: 11/29/2015 3:43:59 PM
Subject: FW: AW: Workshop
Attachments: US.business.model_WS1_v57.pdf

fyi

From: "Stern, Steffen"
Date: Sunday, November 29, 2015 at 1:49 PM
To: Peter Ewens
Cc: "Budde, Matthias"; "Wehrmann, Arne"; "Wiese, Philip"
Subject: AW: Workshop

Dear Peter,

Looking forward to the call tomorrow. In case we decide to jump into the workshop document for next week Thursday, please find attached a current working draft. Final document to be sent out in the next days. Please keep this document confidential.

Best regards,
Steffen

Von: Ewens, Peter
Gesendet: Freitag, 20. November 2015 22:00
An: Stern, Steffen
Cc: Banker, Joan "Joanie"
Betreff: Re: AW: AW: Workshop

Steffen - I will have Sarah on my team send the video materials. I am out next week. Let's shoot for Nov 30. Copying my assistant Joanie

Sent from my T-Mobile iPhone

On Nov 20, 2015, at 12:41 PM, Stern, Steffen <S.Stern@telekom.de> wrote:

Dear Peter,

Sorry for the late reply. Please find below a few explanatory points on in the questions which came up during our analysis. We could discuss them either next week or early in the week thereafter - I understand that you will be on vacation next week (lucky you :)). Just let us know what would work best for you or someone from your team. Any day will do if the call takes place between 7 and 11pm CET (i.e. 10am - 2pm Seattle time)

One further question: We learnt from McKinsey that an US McK team has prepared an analysis on the US TV market / TMUS options in this context. Would you be able to share this analysis?

Thanks and best regards,
Steffen

Spectrum scarcity:

- How serious do you see the spectrum scarcity in the light of potential future offloading?
- What are the economics of more spectrum vs. building more cells – at what point / price does spectrum become

less attractive than investing in denser networks?

- Do you see other ways to deal with spectrum scarcity than investing at spectrum auctions (e.g. increasing network densification, technological solutions, etc...)?

Backhauling ability/offloading:

- How important are backhauling capabilities for operators considering the increasing network densification?
- How is the backhaul market structured? Is it easy to get more (dense) backhaul in light of 5G and small cells (considering the lack of TMUS fixed footprint)?
- Role of mobile offloading to fixed broadband for TMUS
- Rationale behind the recently introduced LTE micro cell & how will this develop given increasing popularity of data caps in fixed offers
- What is your view on 5G and the impact of 5G on the telco players?

Digital adjacencies:

- Do you see any opportunities/threads from digital adjacencies for TMUS (e.g. IoT, B2B M2M, etc...)?
- What is your view on the (rather fragmented) content rights landscape in the US? Will this change in the future and how will this affect telcos and TMUS?

eSIM:

- What is your perspective on the upcoming introduction of eSIM by major device manufacturers in terms of disruptiveness? What is the motivation of handset manufacturers?
- What would be a strategy to avoid being forced into the role of a telco "commodity provider"?

-----Ursprüngliche Nachricht-----

Von: Ewens, Peter

Gesendet: Montag, 16. November 2015 17:22

An: Stern, Steffen

Betreff: Re: AW: Workshop

Steffen - I did catch up with Thorsten in Barcelona. We can get on the phone - just let us know when. Would be great to just send a few lines on the questions in advance so we can be a bit prepared.

Sent from my T-Mobile iPhone

> On Nov 14, 2015, at 12:00 PM, Stern, Steffen <S.Stern@telekom.de> wrote:

>

> Dear Peter,

>

> As requested, we are re-scheduling the workshop. Most likely, the new date will be Dec 3rd. Our assistant should already be in touch with your assistant to fix the date.

>

> I am not aware how far you have been briefed by Thorsten - we are working on the following:

>

> In the Dec 3rd workshop, we are comparing the market attractiveness US vs. EU. Specifically:

> - Current market structure, economic and regulatory environment

> - Market trends / potential changes in Telco market and future market scenarios (with particular focus on US, including fixed net, Cable, TV/content)

>

> In a 2nd workshop later in Dec, we will then focus on the option space for TMUS ("what does it need to be successful in the US market, and how to get there").

>

> McKinsey is supporting on the topic. By the way, the McK team is also working on questions regarding "mobile video" - the US seems to be more advanced compared to EU, and recent moves of VZ and AT&T show that both companies are placing bets on this trend.

>
>
> One last question - since our last call a few weeks ago, a few more questions came up that we would like to better understand. Would you or someone from your team be available for a short follow-up call, ideally late next week or the week after (if holidays allow)? So far, it's about spectrum scarcity (how serious is it?), mobile backhauling ability in light of future network densification needs, and the ability of offloading to Fixed Broadband connections.
>
> Looking forward to the discussion!
>
> Best regards,
> Steffen
>
>
> -----Ursprüngliche Nachricht-----
> Von: Budde, Matthias
> Gesendet: Mittwoch, 11. November 2015 18:41
> An: Langheim, Thorsten; Ewens, Peter
> Cc: Richard, Lilli; Stern, Steffen
> Betreff: AW: Workshop
>
> Peter,
>
> let me see what we can arrange - we get back to you asap.
>
> Thx
> Matthias
>
>
>
> -----Ursprüngliche Nachricht-----
> Von: Langheim, Thorsten
> Gesendet: Mittwoch, 11. November 2015 18:39
> An: Budde, Matthias
> Betreff: Fw: Workshop
>
>
> Thorsten Langheim
> 0170-330 1110
> -----
> Sent from my T-Mobile BlackBerry
>
>
> ----- Original Message -----
> From: Ewens, Peter
> Sent: Wednesday, November 11, 2015 06:38 PM
> To: Langheim, Thorsten
> Subject: Workshop
>
> Thorsten - I see you scheduled a workshop for Nov 24. I am on holidays that week - thanksgiving week and holidays for my daughter.
>
> Any chance of moving this to following week?
>
> Sent from my T-Mobile iPhone

Discussion document

DTAG - DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL

Workshop I
03.12.2015

Working draft

T..

LIFE IS FOR SHARING.

DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL



Context

DT has 2 large portfolio elements besides Germany and UK: TMUS and DTEU

- TMUS delivered strong performance over past 2 years¹ and drives DT's growth
- EU portfolio has been struggling² and recovery to stable business is uncertain

In consequence, TMUS gained more importance within DT (revenues and EBITDA) while the EU portfolio has lost in relevance

However, stability of TMUS business model in long-run unsure given its sub-scale position, competitive environment, and potential market changes

¹ +20% revenue from Q2/13 to Q2/15, +34% total customers from Q2/13 to Q2/15
² -8% revenue from Q2/13 to Q2/15
 Source: DTAG



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Objective

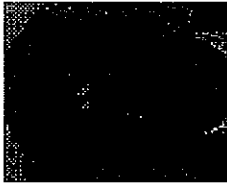
Create a deeper understanding of differences in US vs. DTEU portfolio market environment, structure and attractiveness

Identify major trends for the US that can disrupt current telco business models

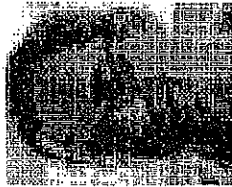
Develop potential market "end-game" scenarios for the US

Outline options for TMUS to address key challenges in respective "end-game" scenarios (i.e., defining a winning position)

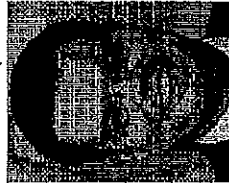
WORKSHOP I - PARTICIPANTS AT A GLANCE



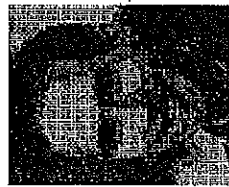
Thorsten Langheim
Head of Strategy &
M&A DTAG



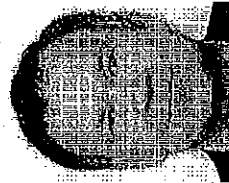
Peter Ewens
EVP Corporate Strategy
T-Mobile US



Matthias Budde
SVP Group Strategy &
Transformation DTAG

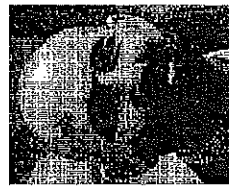


Steffen Stern
VP Portfolio Strategy
DTAG



Peter Bisson
Macro trend
perspective on
US market

In person



Ewan Duncan
Macro trend
perspective on
US market

VC



Brendan Gaffey
Macro trend
perspective on
US market

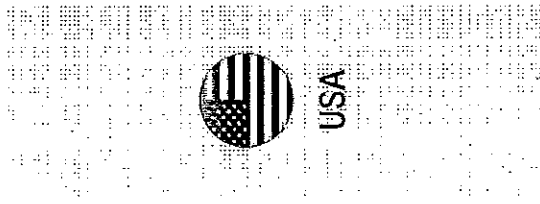
TBC

Source: Team Analysis



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EXTENSIVE EXPERT INTERVIEWS CONDUCTED TO UNDERSTAND MARKET DYNAMICS



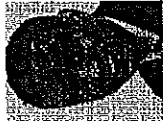
Endre Holen
Macro trend perspective on US market



Brendan Gaffey
Macro trend perspective on US market



Stagg Newman
Regulatory expert (former CTO of FCC)



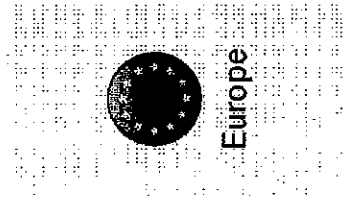
Satya Rao
Adjacencies and future business models



Joy Chen
Adjacencies and future business models



Ewan Duncan
Macro trend perspective on US market



Martin Wrulich
Spectrum scarcity, fixed to mobile trend



Lars Engel Nielsen
Macro trend perspective for EU, FMC deep dive



Tomas Calleja Mediano
Macro trend perspective on EU



Markus Meukel
Expert for eSIM and future business models

Source: Team Analysis



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TODAY, THE US TELCO MARKET IS MORE ATTRACTIVE THAN EUROPEAN PORTFOLIO MARKETS

US

VS. DTEU Portfolio

1



More favorable macroeconomic environment

- ~42 TEUR GDP/capita 2015, growing 3% p.a. 2012-20
- 323mn population 2015, growing 1% p.a. 2012-20
- 82% urban population 2015

- ~17 TEUR GDP/capita 2015, growing 3% p.a. 2012-20
- 127mn population 2015, growing 0% p.a. 2012-20
- 67% urban population 2015, growing 0.3% p.a. 2012-20

2



Larger market with more attractive growth prospects

- ~583bn USD telco revenues 2015, increasing 1% p.a. 2012-20
- 3.3% spend of GDP 2015, declining -3% p.a. 2012-20

- ~49bn EUR telco revenues 2015, declining -1% p.a. 2012-20
- 2.1% spend of GDP 2015, declining -5% p.a. 2012-20

3



Market with limited competition and different structure

- Limited fixed broadband overbuild
- No nationwide fixed broadband players
- Small role of MVNOS

- Fixed broadband overbuild more common
- Typically strong nationwide incumbents
- Significant MVNO market shares in Western Europe

4



More friendly regulatory environment fostering investments

- Regulator with infrastructure focus
- Reliable and investment friendly spectrum awards
- Stable political environment

- Regulator with competition and consumer welfare focus
- Unreliable and CAPEX harming spectrum awards
- Political uncertainty in CEE markets

5



Customers show higher spend for telco services

- 36 EUR mobile market ARPU Q2 2015
- 71 EUR fixed market ARPU Q2 2015

- 13 EUR weighted mobile market ARPU Q2 2015
- 31 EUR weighted fixed market ARPU Q2 2015

Source: Team Analysis, McKinsey / Consumer service



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17

3 US IS A MARKET WITH LIMITED COMPETITION AND DIFFERENT MARKET STRUCTURE

PREPARED ON A BACKUP IN VLS
NOT EXHAUSTIVE

US

Area with at least 2 broadband providers

Area with 1 or no broadband provider

VS.

European portfolio



Fixed

- No nationwide broadband players – high geographical fragmentation
- Limited FMC ability
- Limited overbuild for broadband
- Cable key broadband technology

- Strong nationwide incumbent(s) typical
- FMC as typical value proposition
- Broadband overbuilt more common
- No dominating technology for broadband

Mobile

- 2 main players (i.e., from 4 nationwide operators 2 are subscale)
- MVNOs not significant in terms of market share

- Incumbent and at least 2 further operators common
- MVNOs with significant market shares in Western Europe

¹ According to the National Broadband Map defined as a two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream
Source: DTAG, Team Analysis, Broadband.gov

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4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (1/2)

EXCERPT



Overall policy objectives

US regulation aims at fostering investment



EU regulation aims at enhancing competition and securing consumer welfare



Access seeker Business

No regulated wholesale access

- No obligation to offer fixed wholesale access
- No obligation to offer MVNO access – MVNOs on commercial terms only

Strict regulated wholesale access obligations enable and protect access seeker business models (e.g., ULL based like 1&1, MVNO like Drillisch, etc.)



Spectrum awards

Reliable and investment friendly spectrum awards

- Transparent and reliable auction designs
- Spectrum ownership enables long-term invest perspective
- Spectrum awarded regionally

Unreliable and investment harming spectrum awards

- Intransparent and non-harmonized auction designs maximizing state proceeds
- No spectrum ownership - limited license durations create investment uncertainties and "extortion potential" in future auctions

Source: DTAG, Team Analysis



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4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (2/2)



US



Services regulation

Lax consumer protection, net neutrality allows zero-rating

- Very relaxed consumer protection and data privacy policy
- Net Neutrality covers fixed and mobile operators (excl. B2B)
 - Allows for zero-rating¹
 - "Specialized services" possible and could be prioritized²
- Policy driven by case law ("wait-and-see intervention")



DTEU

Strict consumer protection, net neutrality allows zero-rating

- Very strict consumer protection and data privacy policy
- Net Neutrality requirements for all operators (mobile, fixed)
 - Allows for zero-rating¹
 - Specialized services² possible and could be prioritized²
- Policy driven by coordinat. approach amongst regulators



Market consolidation

Large scale in-market consolidation currently not allowed

- 4>3 mobile consolidation currently not allowed
- Large scale cable consolidation was put on hold
- FMC/Video consolidation likely to receive clearance

Significant further in-market consolidation unlikely

- EU Commission more skeptical towards 4->3 mobile consolidation
- Even FMC consolidation under scrutiny in some markets
- Commission with intense focus on keeping up competition



Political environment

Overall stable political environment

- No sudden regulatory measures for political purposes or to close budget gaps
- Changes in political powers do not lead to major alterations
- Enables long-term investment perspectives

Very high political uncertainty in CEE

- Special taxes, excessive fees etc. (e.g. HU, ROM)
- Nationalistic attitudes and critical towards foreign ownership
- Investment environment largely dependent on political parties in power
- Compliance issues in several CEE countries

¹ Zero-rating as long as non-discrimination of other similar services; e.g. video; however no throttling or prioritization of services allowed, e.g. video vs. rest of traffic ² Special services are considered as not being regular internet traffic (such as high-quality VoIP, IPTV) and can be treated differently; definition of "specialized services" not yet finalized in both regions
Source: DTAG, Team Analysis



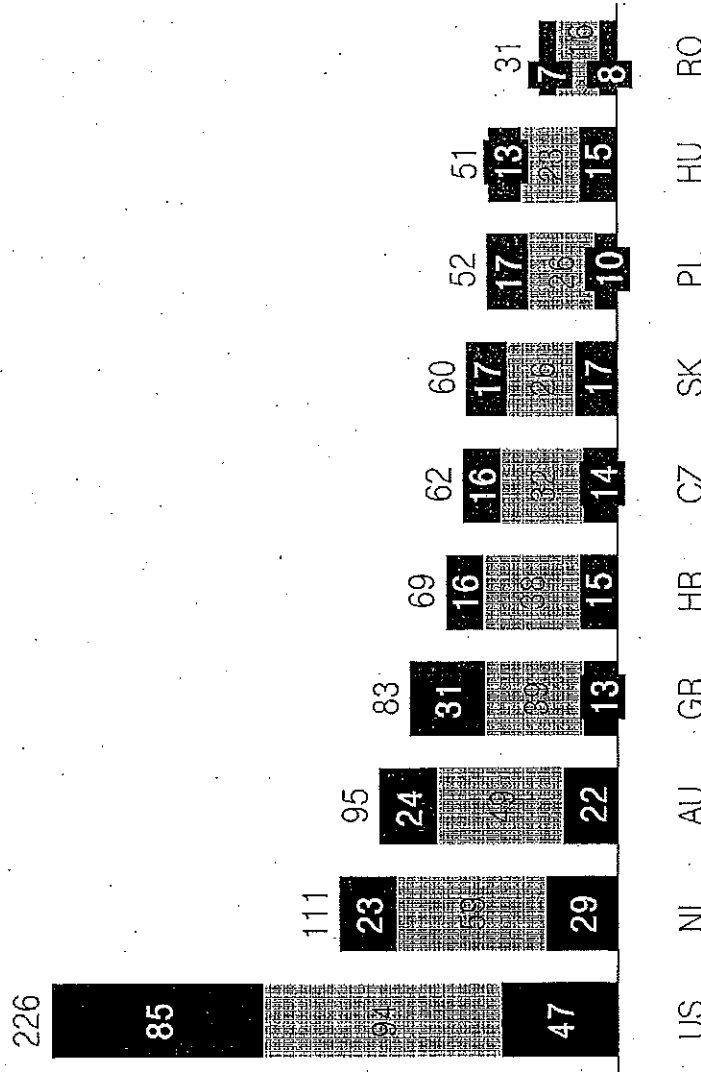
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23

5 US CUSTOMERS SHOW HIGHER SPEND FOR TELCO SERVICES

Market ARPUs 2014

USD/month



¹ Includes subscription and on-dem and revenue via cable, satellite, IPTV and DTT (excl. TV advertising) ² Based on Mason data ³ Based on DTAG internal estimates
Source: DTAG, Team Analysis

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US mobile ARPUs on average around 3x higher than in DTEU footprint countries

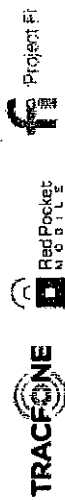
US fixed ARPUs on average more than 2.5x higher than in DTEU footprint countries

US Pay-TV ARPUs on average more than 4x higher than in DTEU footprint countries

1 NEW MOBILE ENTRANTS WILL NOT BECOME RELEVANT PLAYERS

Trend factualls – excerpt

MVNO subscriber market share
%, 2014



TRACFONE
Red Pocket
Project Fi

21	17	9	5	2	2	1	0	0
USA	NL	Austria	CZ	Hungary	Poland	Greece	Croatia	Romania

MVNOs currently with 9% market share in the US telco market (vs. 15%+ in selected Western European countries)

US MVNO agreements based on commercial terms – all 4 mobile players will continue to engage in commercially rationale contracts

“Regulation won't support access seeker business models as the FCC values infrastructure investments over competition.”
- Expert interview

“Telco is a scale game. Without regulatory and telco support it is almost impossible that new mobile entrants will be able to disrupt the industry.”
- Expert interview

“European regulation likely to continue favorable regulation for access seeker business models”

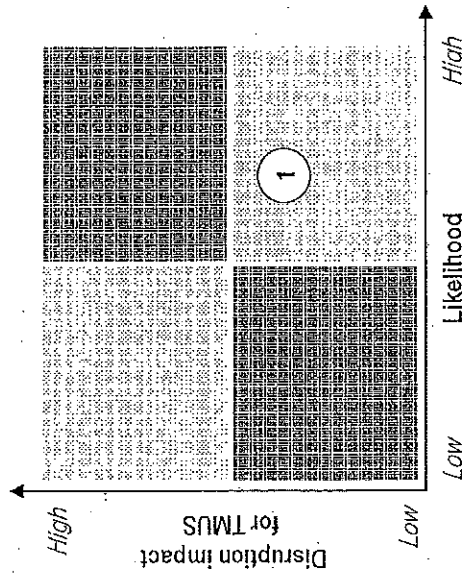
Source: Team Analysis, Expert interviews, OVUM

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“So What” for TMUS

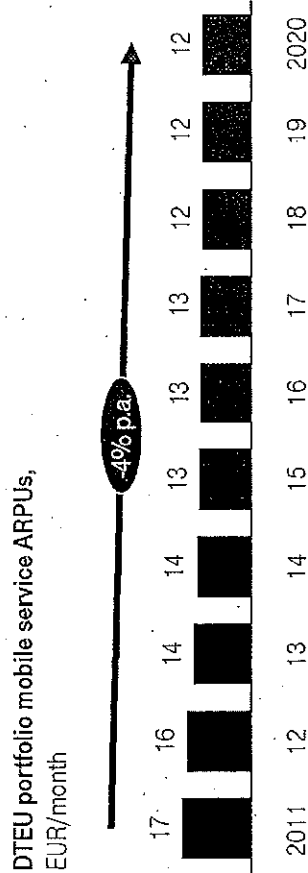
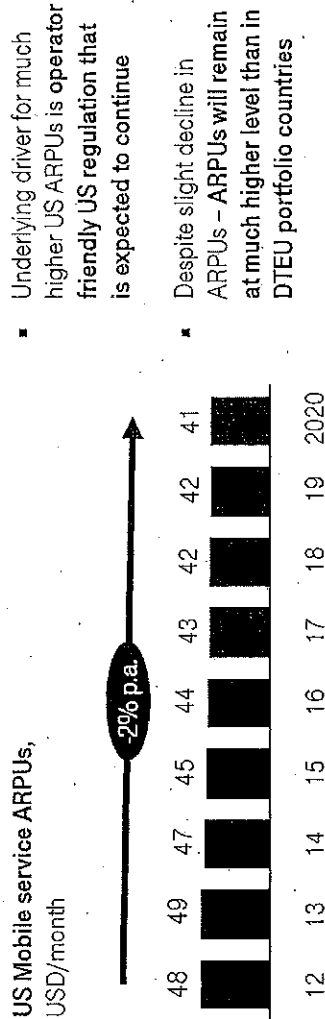
Trend can be disregarded to define a winning position for TMUS

- Continuation of status quo bears no disruption potential for TMUS
- Emergence of MVNO entrants unlikely – however, if they would emerge it bears a disruption potential for TMUS



9 US ARPUS WILL REMAIN ON MUCH HIGHER LEVEL THAN IN EU PORTFOLIO COUNTRIES

Trend factualls – excerpt



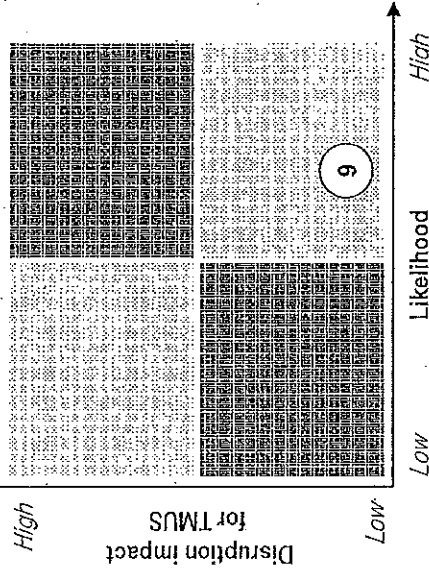
1 Weighted average based on the service revenues per country
Source: Team Analysis

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“So What” for TMUS

Trend can be disregarded to define a winning position for TMUS

- Continuation of status quo bears no disruption potential for TMUS – US continues to be relatively more attractive than DTEU portfolio markets



10 MOBILE/MOBILE AND FMC CONSOLIDATION COULD CHANGE TELCO MARKET STRUCTURE

Trend factuals – excerpt

- Mobile
 - TMUS + Sprint merger regarded as natural strategic move by all experts
 - However, regulator unlikely to allow emergence of 3-player mobile market
 - Antitrust policy changing slowly as no direct political influence possible, any changes only likely in mid/long-term via changes in key personnel
 - Consolidation also unlikely under new Democratic administration and only slight improvements vs. today expected under Republican government
 - Dish's massive spectrum could lead to mid-term spectrum deal

- Fixed
 - Cable players under limited consolidation pressure, since they are winning broadband market share from traditional telcos
 - No FMC consolidation focus due to limited geographic footprint of cable players (no country wide FMC possible) and given prohibition of previous cable mergers
 - Many experts eventually expect a Verizon Comcast merger
 - However, "ego issue" of several large market players hinders consolidation (e.g. VZ, Comcast do not want to give up control, Cox Comm. "not for sale")

- Video/content
 - Further consolidation of video services seen as likely (e.g. content player + telco), long term success of integrated business models needs to be proven
 - Telcos will not end up as content owners and aggregation role difficult due to very fragmented content distribution rights

Source: Team analysis, reports, expert interviews

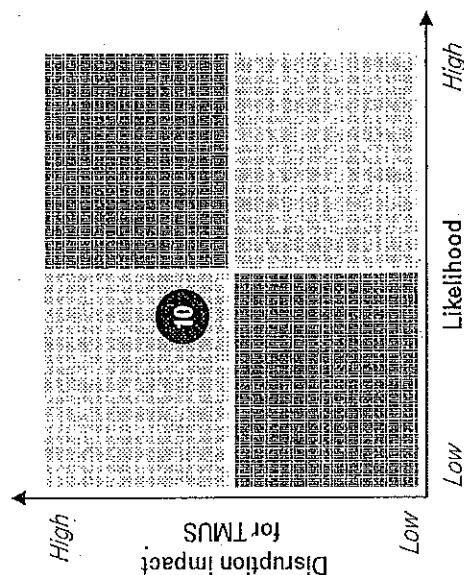


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"So What" for TMUS

Trend is a scenario relevant wild card - with clear disruption potential for TMUS

- Sprint merger as natural strategic step to obtain scale - however, regulatory approval regarded as unlikely
- Further FMC consolidation might reduce addressable market share for TMUS as mobile only player (if AT&T launches FMC offer and Verizon attempts to merge with Comcast)



11 FURTHER LONG-TAIL CONSOLIDATION TO BE EXPECTED IN THE FIXED NET MARKET

Trend factuals – excerpt

Manifold recent consolidation (attempts) among large cablecos¹

COMCAST
Time Warner Cable
Merger between Comcast (#1) and TWC (#2) prohibited

Charter
Time Warner Cable
bright house
Charter Comm. (#3) bought TWC (#2) and Bright House (#6)

Altice
Altice bought CableVision (#5) and Suddenlink (#9)

suddenlink

CABLEVISION

¹ Ranking based on population covered in 2014
Source: Team Analysis, broadbandmap.com

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Continued long-tail consolidation to be expected

- Currently still over 400 cable providers in the US (i.e., highly fragmented market)
- Many cable providers are subscale: 93% of the cable providers operate in one state only and only 20 providers cover more than >1 mn people



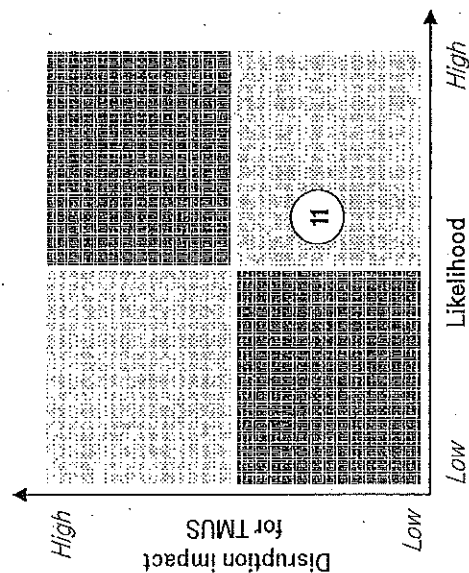
Everything below Comcast is in consolidation mode

– D. Goei, (CEO, Altice)

“So What” for TMUS

Trend can be disregarded to define a winning position for TMUS

- Continuation of status quo outside of Mobile market bears no disruption potential for TMUS



12

REGULATORY ENVIRONMENT REMAINS STABLE IN US AND EUROPE

Trend expectations – excerpt

	US	VS	DTEU
Whole-sale	<ul style="list-style-type: none">Still no mobile wholesale obligation, thus no new disruptive market entries (MVNOs)No fixed wholesale regulation expected, thus no new market entries by access seekers (e.g., ULL)		<ul style="list-style-type: none">MVNO obligations will likely remainFixed access regulation might become more lax but significant improvements yet to be seen
Consoli-dation	<ul style="list-style-type: none">4->3 merger not expected in the short termMajor cable consolidation rather unlikely given TWC-Comcast prohibitionCross-sector consolidation will likely get approval		<ul style="list-style-type: none">4 player mobile markets will remain key objective of EU competition policyFMC consolidation will become more difficult
Services regulation	<ul style="list-style-type: none">Services regulation will remain rather lax, but potential increases in regulatory tendencies e.g. in consumer protection, net neutrality	See trend 10 for further details	<ul style="list-style-type: none">Current high level of regulatory intervention on telcos, application to OTTs seen as likely in the future
Political environ-ment	<ul style="list-style-type: none">Overall environment is stable, slight improvements possible with new Republican administration		<ul style="list-style-type: none">Overall environment mixed and no major improvements in stability or investment-friendliness likely

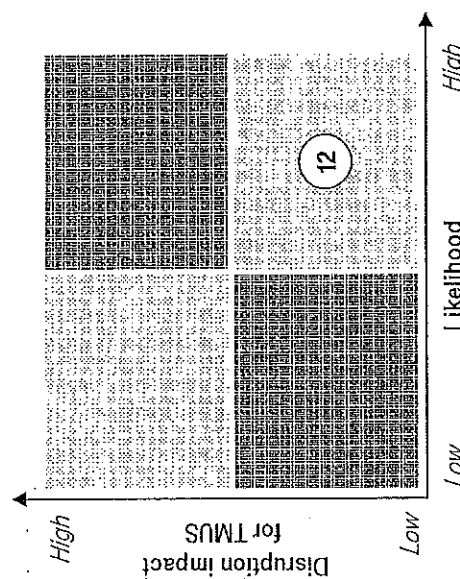
Source: Team Analysis

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“So What” for TMUS

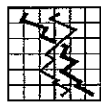
Stable trend, thus no disruption expected for TMUS – can be disregarded for scenario building

- Continuation of status quo bears no disruption potential for TMUS
- Monitoring of situation and active lobbying for mobile-mobile consolidation



WRAP UP – US CONTINUES TO BE AN ATTRACTIVE MARKET DESPITE POTENTIAL WILD CARD TRENDS

1



US continues to have more favorable macroeconomic environment vs. DTEU portfolio countries



2



US continues to be the larger market with relatively more attractive growth vs. DTEU portfolio countries



3



US continues to have less competitive market structure (e.g., no access seeker business model) vs. DTEU portfolio countries



4



US continues to have more operator friendly regulatory environment (i.e., to foster infrastructure invests) vs. DTEU portfolio countries



5



US customers will continue to have higher spend for telco services (e.g., US mobile ARPUs will remain ~ 22 EUR higher than in DTEU portfolio countries)



Source: DTAG, Team Analysis



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45

From: Ewens, Peter </o=Western Wireless Corp/ou=PCS/cn=User Accounts/cn=Finance/cn=WANewport/cn=PEwens>
To: Legere, John
Sent: 12/3/2015 1:29:47 PM
Subject: FW: Thorsten

John – as I mentioned below, Thorsten has hired McKinsey to give him independent perspective on US vs rest of Europe outside Germany. US is now much bigger portion of DT market cap than rest of Europe.

On the one hand, US market seems intrinsically more attractive in terms of growth, propensity to spend, ARPU's etc, on the other he is always concerned that US industry structure is broken and we could be headed down a path of commoditization that will make it even harder to improve returns on capital. Workshop today included me and a long-time partner in NY from McKinsey, who I really trust.

We spent some time on structure, but more time on industry conduct – VZ's incentives, potential for Sprint to be irrational, and AT&T's seeming lack of stomach for the consumer wireless battle. As usual Thorsten sees ghosts in many places, but I think we collectively made progress on the idea that the industry is not about to melt down anytime soon – either from Sprint's behavior, Comcast entry in wireless, AT&T or VZ fighting back, Apple and other OEMs driving commoditization through eSIM, etc. I think it's important to stick with Thorsten on these topics because one of his ideas is that if we can't get 4-3 consolidation the industry is headed for commoditization and DT should limit their exposure in the US. Of course, they could do that by selling down – which would be ok with us, we just don't want the constraints on their exposure to come in the form of stricter capital limitations.

Peter

From: Peter Ewens
Date: Sunday, November 22, 2015 at 5:27 PM
To: John Legere
Subject: Thorsten

John – I spent some time with Thorsten when we were in Barcelona

He is very much thinking about what we need to be successful over a five year period. They are coming to grips with the idea that there may be no near-medium M&A solution and that it might actually be really good to own us for a while. A key element is getting comfortable that we can be successful as an independent wireless company without wireline – something they are not seeing in Europe. He has retained McKinsey (his idea, not mine) to do a couple of workshops in December to look at future US industry scenarios – first one is Dec 3. I will attend both.

Also, I will be on vacation this coming Tuesday and won't dial into SLT.

Peter

From: Ewens, Peter </O=WESTERN WIRELESS CORP/OU=PCS/CN=USER
ACCOUNTS/CN=FINANCE/CN=WANEWPORT/CN=PEWENS>
To: Stern, Steffen
CC: Roettgering, Mark
Sent: 12/10/2015 8:29:02 PM
Subject: Re: AW: AW: Workshop

Steffen – I think doc ok. Perhaps we can chat for a few minutes on Monday – 7:30am my time, 4:30pm your time?

Mark Roettgering leads our Pricing group.

Mark – Steffen works for Thorsten Langheim in DT Strategy and may have a few questions on how we think about pricing and our process. In particular, I think questions about how to avoid the kind of deep price battles DT has seen in Europe are likely top of mind.

Peter

From: "Stern, Steffen"
Date: Thursday, December 10, 2015 at 5:50 AM
To: Peter Ewens
Subject: AW: AW: Workshop

Peter,

pls find attached a first draft version of the workshop document. As you can see, we are now going with a very slim deck. We will add a few backup pages for the "end game" options – to come asap.

Please let me know if you have any comments / changes / additions. Happy to jump on a call to discuss.

Best,
Steffen

PS: Is there a contact person in TMUS you could recommend for an exchange on TMUS' pricing strategy? (see email below)

Von: Ewens, Peter
Gesendet: Montag, 7. Dezember 2015 18:16
An: Stern, Steffen
Betreff: Re: AW: Workshop

Steffen – I think the plan is fine. As you learned, the slides are helpful but what Thorsten really wants is the discussion.

Just a couple notes:

- The strategy options are all about timeframe. In the 10-year timeframe we are unlikely to be an independent company with our current ownership configuration, but I think it's very important to establish that while competition will get incrementally harder each year as we capture the easiest switchers, there is unlikely to be a big structural change to industry profit pools in the next 2-3 years – for all the reasons we discussed. Therefore the "no regrets" organic strategy is to continue smart growth for as long as possible. We can discuss more when we talk.
- TMUS+TWC – I think you mean TMUS+New Charter. Charter is in a three way merger with TWC and Brighthouse, likely to close mid-2016
- It's also possible, although harder, for a joint bid for TMUS by Comcast and New Charter

- TMUS+Dish may not be a 10-year end game, but it extends our runway several years with an unbeatable spectrum position – so we have to include it as an option

From: "Stern, Steffen"

Date: Monday, December 7, 2015 at 8:55 AM

To: Peter Ewens

Subject: AW: Workshop

Peter,

for the upcoming workshop on Dec. 16th, we wanted to keep the slide material rather slim (as a learning from workshop 1 ;)). Focus is on 3 key agenda points:

- 1) Workshop 1 recap: Market attractiveness US vs. EU, and TMUS challenge
- 2) Future competitive dynamics US
- 3) TMUS options

Detailed agenda with first hypotheses on messages below.

In terms of next steps, I would propose the following:

- we start to create a few slides to have a basis for a structured discussion
- we align with you starting ca. mid of this week to jointly bring the document to a good shape for next week's workshop
- Intensity of iterations as needed

Would that work for you?

One additional request: In the workshop, you mentioned TMUS' outstanding pricing analytics & skills. A team in Group Strategy is currently working on pricing questions and would love to get in touch with one of your experts. Can you recommend a contact for us?

Best regards,
Steffen

Workshop I recap (45mins)

- *** slide 1: US market is and will be more attractive than DTEU portfolio markets
(Summary of market structure and trend discussion from WS 1)
- *** slide 2: TMUS not in a sustainable position to win in US (ROCE < WACC)
(Showing ROCE vs. WACC in US for 2014 and 2019E, FCF profile, scale issue)
- *** slide 3: *Hypothesis tbc* - Capital market values subscriber growth and tapping into new growth areas (e.g., advertising/video)
(Mapping of valuation/market cap for key telco players over time with major moves - e.g., AT&T buying DTV, VZ buying AOL)

Competitive dynamics (1h)

- *** slide 4: Several distinct player moves can shape US telco market going forward
(Outline of potential moves for AT&T, VZ, Sprint, Comcast, TWC group)
- *** slide 5: Select player moves will likely go hand in hand - most moves will further weaken TMUS position (if we do not react)
(clustering of competitive player dynamics according to joint occurrence, implication for TMUS position if we do not react)

TMUS options to define a winning position (1h)

- *** slide 6: X options emerge for TMUS in light of competitive dynamics
(outline/clear definition of option space for TMUS)
- *** slide 7: Y options recommended for further investigation

(Qualitative evaluation of options according to (i) strategic viability, (ii) increasing ROCE, (iii) increasing capital market valuation)

*** slide 8-13: One pager deep dives for options that are recommended for further investigation (potentially backup in actual WS)

*** slide 14: At a glance summary of key questions that need to be answered for further option evaluation

*** slide 15: Preliminary outline of short and mid-term TMUS measures to (i) increase optionality (ii) prepare for specific market developments

(timing of options and outline where we want to be market shaper vs. follower)

Wrap up and alignment on potential next steps (15mins)

In terms of long-term market consolidations that TMUS could participate in, I currently see:

- TMUS + Sprint
- TMUS + Comcast
- TMUS + TWC

Dish comes as an "add-on optionality" to add spectrum and TV customers, but not an structural end-game consolidation move as such.

Von: Stern, Steffen

Gesendet: Montag, 7. Dezember 2015 08:56

An: Ewens, Peter

Betreff: AW: Workshop

Hi Peter. Thank you for your participation in last week's workshop. Please find attached the final doc.

I will approach you later today regarding how to best tackle Workshop 2 which will come up on Dec. 16th.

Challenge will be to provide Thorsten with a clear "so what" even though there is a significant amount of influencing factors in the market which are hard to predict...

Best Steffen

Von: Ewens, Peter

Gesendet: Samstag, 5. Dezember 2015 00:15

An: Stern, Steffen

Betreff: Workshop

Steffen – thanks for all your preparation for the workshop. Can you send an electronic copy of the final doc?

thanks

DEUTSCHE TELEKOM SUPERVISORY BOARD MEETING

DRAFT 3

VIENNA, SEPTEMBER 5TH, 2018

T..

ERLEBEN, WAS VERBINDET.

CONTENT

- 01 WE ARE LIVING IN A NICE HOUSE, BUT IN A BAD NEIGHBOURHOOD...
- 02 LITTLE CREDIT FOR BEING THE BEST POSITIONED OPERATOR IN EUROPE
- 03 DID NOT A "ONE TRICK" COMPANY
- 04 FMC IS POWERFUL - BUT RELEVANCE AND ABILITY TO PLAY DIFFERS ACROSS MARKETS
- 05 QUO VADIS PORTFOLIO: CONSISTENT CAPITAL ALLOCATION
- 06 FOCUS TOPICS 2018/19

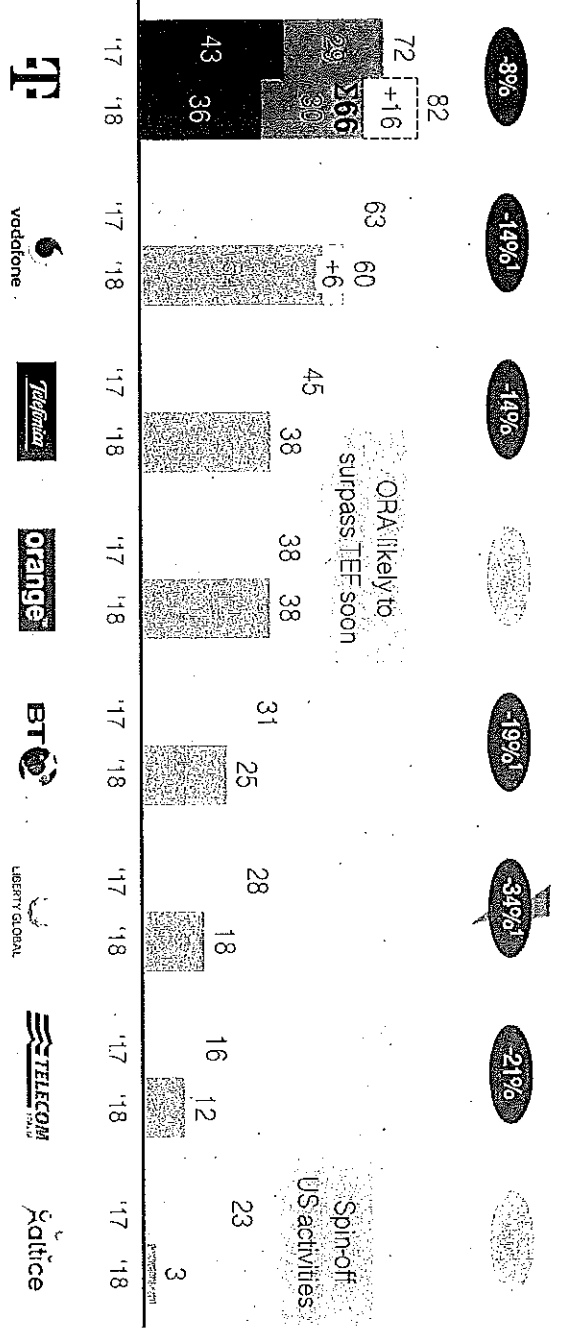


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- Strictly confidential -

DT UNCOMFORTED #1 EU TELCO

Market cap comparison Aug 2017 vs Aug 2018 (in € bn)



EU peers lost € 54bn in LTM

VOD/LBTY lost € 19bn despite transformative deal

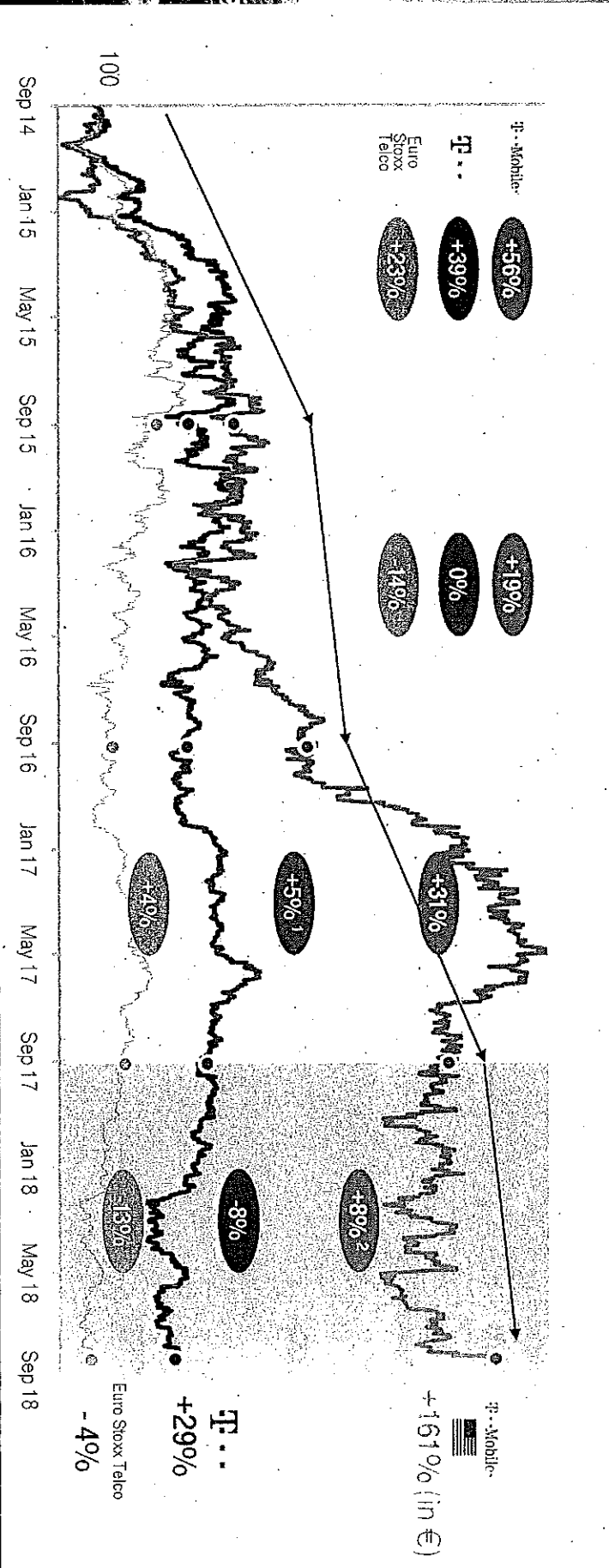
DT gap to #2 to increase to € 22bn after TMUS deal

DT ex US TMUS Synergies Sprint Synergies

Source: CapitalIQ, market caps per 30.08.2017 and 10.08.2018
1) 2017-2018 Changes in LC: VOD -17%, BT -22%, LBTY -37%

ERLEBEN, WAS VERBÜNDET.

DT OUTPERFORMED PEERS IN AN INCREASINGLY DIFFICULT TELCO MARKET ENVIRONMENT



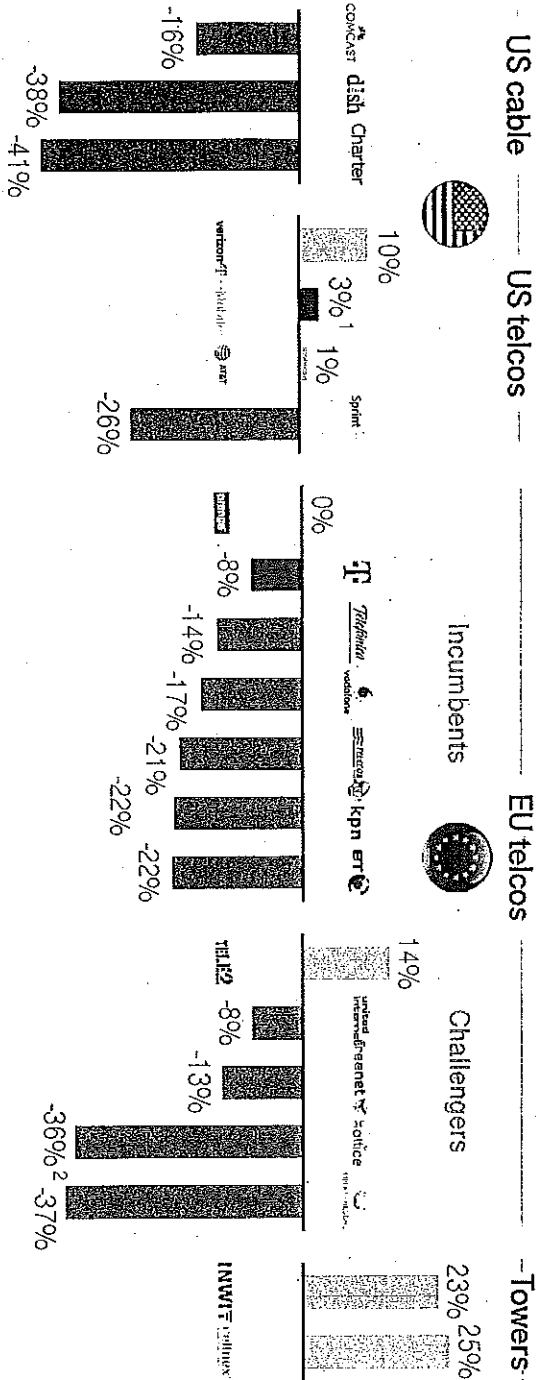
Source: CapitalIQ per 10.08.2018.
1) 1% share price + 4% increase in share count 2) -2% in LC



ERLEBEN, WAS VERBINDET.

THESE LAST 12 MONTHS DT HAS DECLINED IN VALUE, BUT STILL OUTPERFORMED MOST EU PEERS

Market cap performance (Aug '17 – Aug '18 in local currency)



Key trends impacting DT:

- Global Telco sector
- EU Telco sector
- DT issues

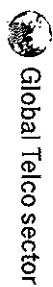
Source: CapitalIQ, market caps dated 30.08.2017 vs. 10.08.2018. Charter by Goldman Sachs. 1st 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2) Alice 2018 PF combining both EU and US Equity Value - source: DT M&A comp



ERLEBEN, WAS VERBINDER.

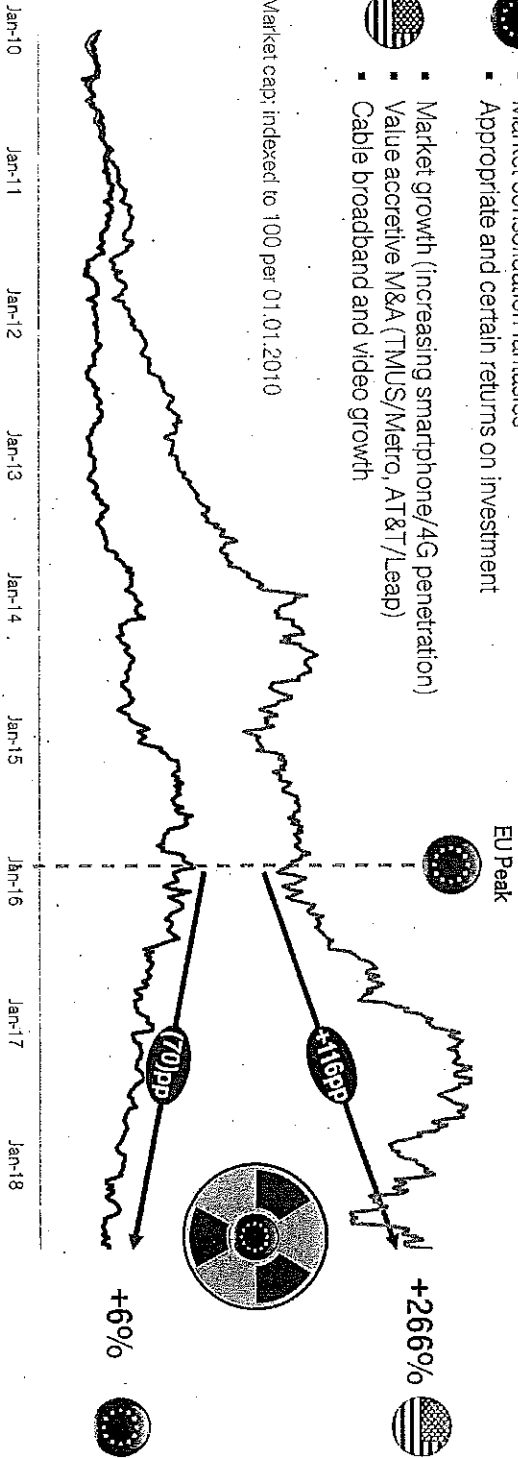
THE EU TELCO SECTOR TURNING POINT WAS 2015



Investors' hopes until 2015:

- EU single market and regulatory reform hopes
- Market consolidation fantasies
- Appropriate and certain returns on investment
- Market growth (increasing smartphone/4G penetration)
- Value accretive M&A (TMUS/Metro, AT&T/Leap)
- Cable broadband and video growth

Market cap: indexed to 100 per 01.01.2010



What investors got:

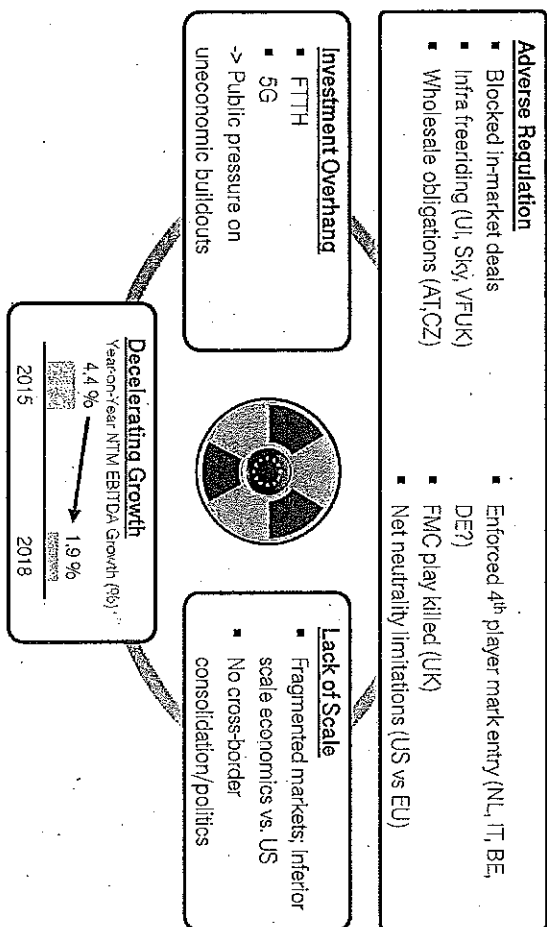
EU Telcos lost
€ 115bn
in value
since peak

Sources: CapitalIQ, Morgan Stanley, EU Telcos include Deutsche Telekom, BT, Groep, Telefonica, Orange, Telecom Italia, Vodafone, US Telcos include T-Mobile, Sprint, AT&T, Verizon, Charter, Alice USA, Comcast

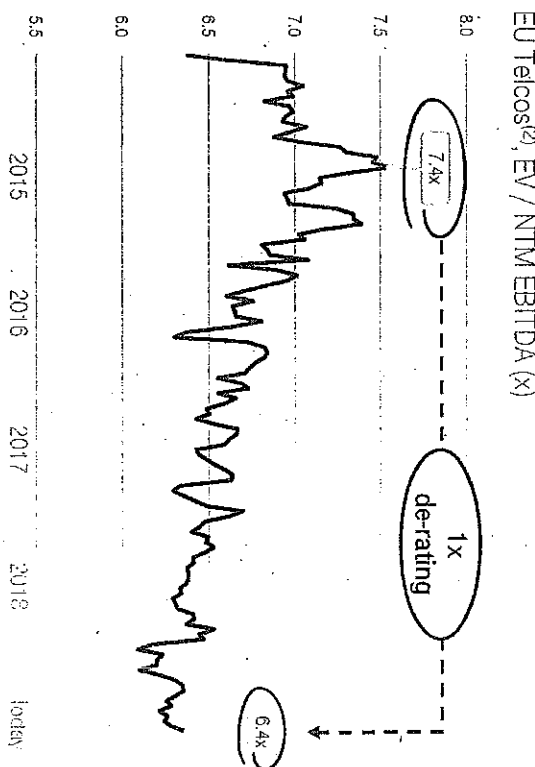
ERLEBEN, WAS VERBINDER.

A TOXIC MIXTURE HAS LED TO CONTINUOUS EU TELCO SECTOR DE-RATING

EU Telco pressure points...

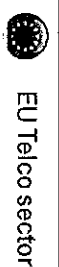


... fueling sector de-rating



ERLEBEN, WAS VERBINDET.

REGULATORY MEASURES AT THE CENTER OF TELCO VALUE CREATION - EVAPORATING THE BURN OF DT MARKET CAP



Regulatory intervention in market consolidation

- Failed mobile consolidation

				withdrawn
	O ₂			prohibited
				withdrawn
- Approved, but subject to significant remedies

			approved, subject to establishment of 4 th MNO
--	--	--	---

Increased pressure on incumbents - DT value impacted

- Regulatory measures impacting DT value:
 - Mobile and Fixed Termination Rates
 - Roaming retail and wholesale price regulation
 - Regulatory induced fixed line losses
 - Regulatory induced mobile market share losses

FCF impact Market cap impact












€1bn ➡ €14bn

Valuation pending

Strictly confidential -

ERLEBEN, WAS VERBUNDEN.

THE US TELECOM MARKET REMAINS MORE ATTRACTIVE THAN EUROPEAN PORTFOLIO MARKETS

US market more attractive			
	More favorable macroeconomic environment ¹	GDP Growth	~€51k 
	Customers show higher spend for Telco services ²	Mobile ASP	€36 
	Larger market with more attractive growth prospects ²	Mobile Revenue	€47bn 
	More friendly regulatory environment fostering investments		<ul style="list-style-type: none"> ✓ Infrastructure focus ✓ High reliability
	Market with limited competition and different structure		<ul style="list-style-type: none"> ✓ No nationwide fixed / no overbuild ✓ No/weak MVNOS
			<ul style="list-style-type: none"> ✗ Competition and consumer focus  ✗ High uncertainty  ✗ Nationwide incumbents with  ✗ Strong MVNOS

1) Year 2017, 2) Q1 2018 market Revenue and ARPU

3) DT Footprint GDP per capita calculated based on aggregation of GDP figures for DT EU subsidiaries in EU, RO, GR, SK, BG, CZ, PL, AT and NL, excl. ALB, ME and MK. Data for respective aggregated population.

Source: DTAG, Statista, Analysis Mason

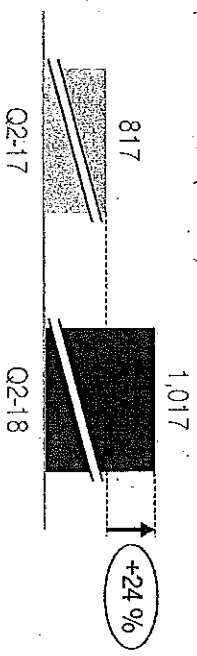
ERLEBEN, WAS VERBINDET.

- Strong vertically -

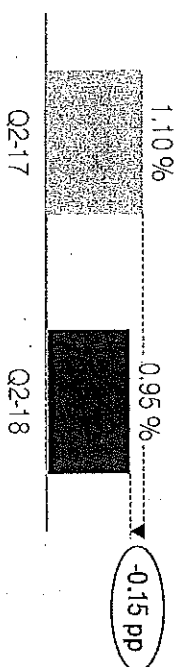
TMUS STRONG ORGANIC PERFORMANCE AMID M&A DISTRACTIONS OVER THE LAST 12 MONTHS

Outperforming on Net Adds with record low Churn

Branded Postpaid Net Adds (x1 000)

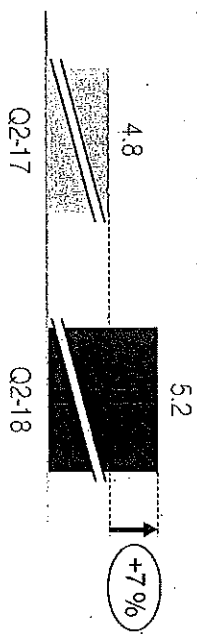


Branded Postpaid Churn

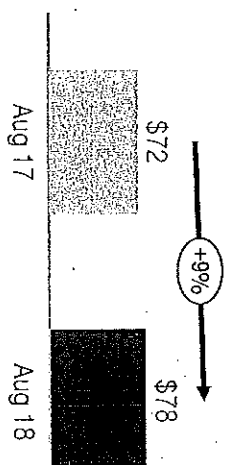


Sustained revenue growth

Branded Postpaid Revenue (in \$ bn)



TMUS target share price (in \$) ¹



Source: Company public filings

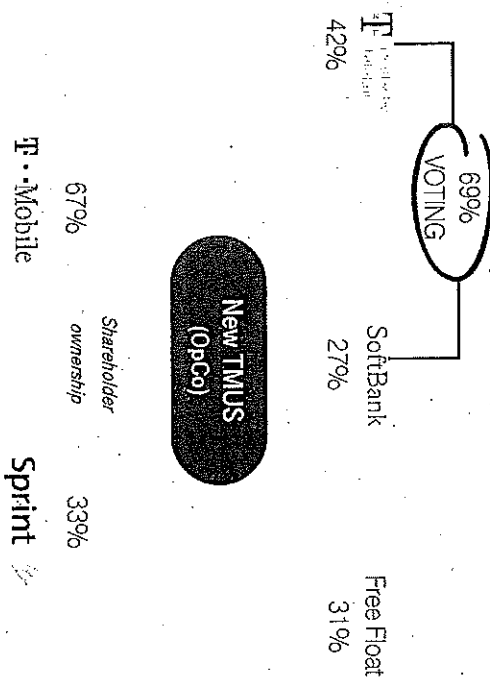
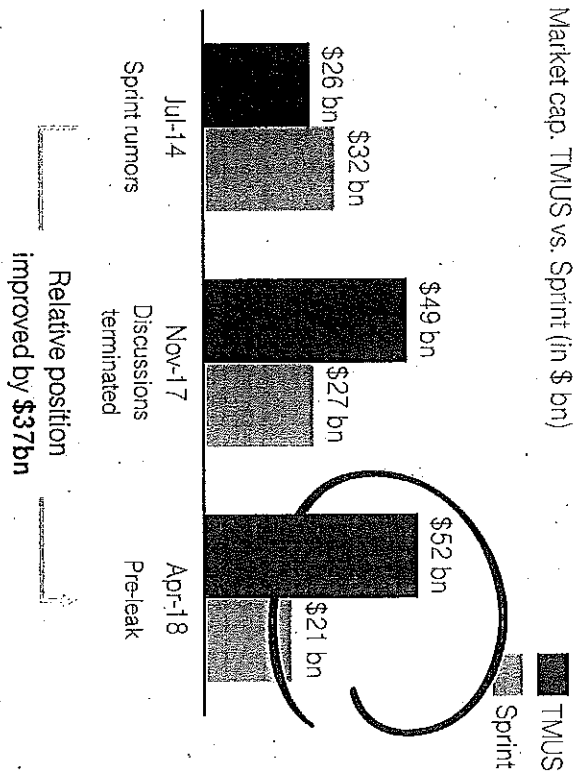
¹ 0-18 month target price

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PATIENCE AND OFF OVER THE LAST 4 YEARS - SMART DEAL STRUCTURE PROVIDES CONTROL

TMUS significantly improved its relative position to Sprint

Creative deal structure enables DT to control New TMUS



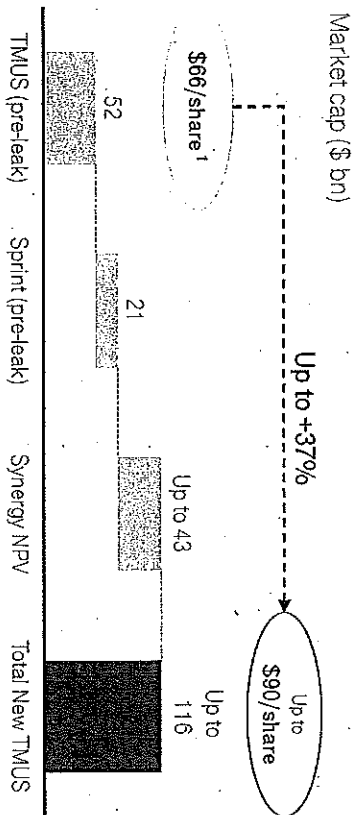
Source: CapitalIQ per 09.04.2018 and 15.07.2018
 1) Total branded customers Q2 2014 vs. Q1 2018; Sprint Q1 2018 figures excludes Lifetime subscribers

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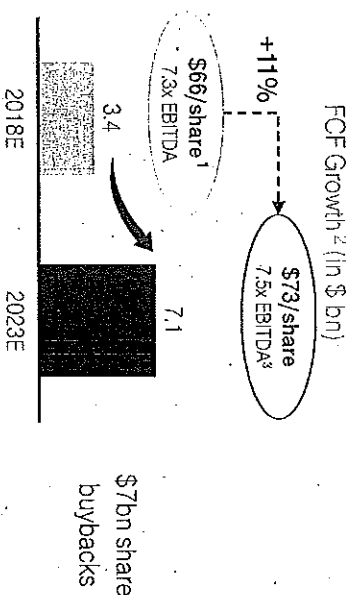
SIGNIFICANT VALUE UPSIDE AHEAD - IN DEAL AND NO-DEAL SCENARIOS

No deal / standalone scenario provides valuation floor for TMUS above current share price

DEAL



NO DEAL SCENARIO



UP TO ~\$24 PER TMUS SHARE ACCRETION

~\$1-12 PER TMUS SHARE ACCRETION⁵

BUT INVESTORS CURRENTLY WAIT FOR A DECISION → SHARE PRICE MOVING SIDeways

Notes:

- 1) As of 10/08/2018
- 2) Based on TMUS projections on a standalone basis (Build 7.0 scenario) developed by TMUS management
- 3) Illustrative forward AV/Cash EBITDA multiple reflects mid-point 7.0x - 9.0x range
- 4) Announced \$9.0bn share buyback program, 1.5bn share buyback already occurred, an additional \$0.5bn expected in 2019 (immediate of 1.5bn)
- 5) Reflects premium of discounted equity value implied by 7.0x - 9.0x AV/Cash EBITDA multiple above current TMUS Price of \$80.00 per share as of 10/08/2018, discounted equity value based on 2023E Full year value discounted at 3.0% cost of equity

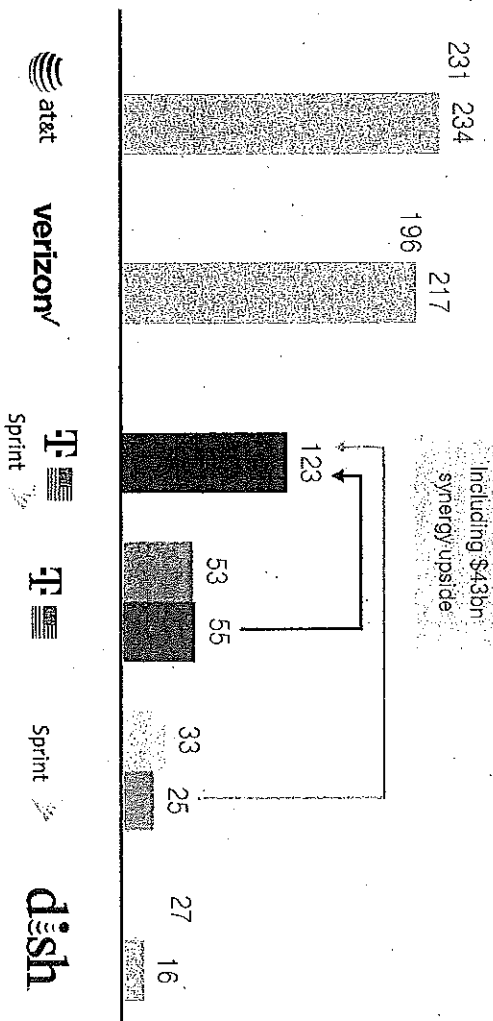
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- Streng vertraulich -

THE DEAL STRUCTURALLY IMPROVES TMUS MARKET POSITION ALSO FOR FUTURE M&A

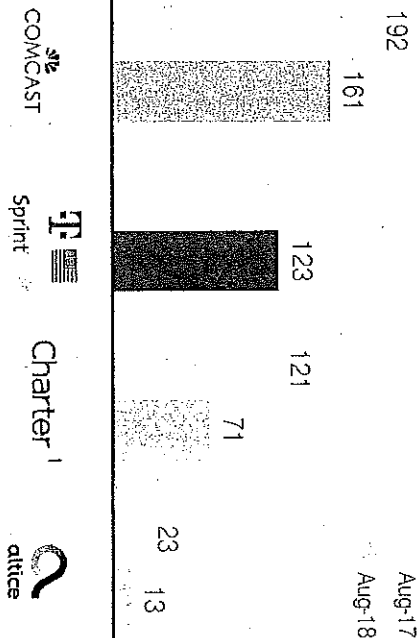
Reduced the gap with AT&T and Verizon

Aug-17 vs. Aug-18 Market cap (in \$ bn)



Position vs Cable improved given value decline

CABLE PLAYERS COME INTO REACH -
BUT QUESTION IF AND WHEN NEEDED?



Source: CapitalIQ, per 30.08.2017 and 10.08.2018

1) Charter values by Goldman Sachs, calculated based on fully diluted shares

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EXECUTIVE SUMMARY

- 1) **WE ARE LIVING IN A NICE HOUSE, BUT IN A BAD NEIGHBOURHOOD...**
 - DT share price outperformed its EU peers over last years and remains largest EU Telco
 - Global Telco shares hit by increasingly difficult market environment characterised by low growth, high leverage and increasing regulatory concerns
 - EU Telco de-rated since 2015 peak driven by "toxic" sector trends, in particular higher regulatory uncertainty
 - DT is facing specific issues, notably high investments, indirect cost challenge, "Schwarzer Peter" risk in fibre, and T-Systems FCF drag
 - Weak sector trends and DT issues result in DT ex-USA ("Rump") devaluation
- 2) **TODAY WE GET LITTLE CREDIT FOR BEING THE BEST POSITIONED OPERATOR IN EUROPE OUTINVESTING PEERS**
 - DT portfolio superior to peers (well balanced with unique US assets and no EM exposure, out-investing peers, with all assets growing)
 - We have been doing the right things (FMC deals, out-investing peers with sustainable growth in reach at DE and EU)
 - However, DT valuation still in line with peers as investors not paying for DT's superior portfolio and outlook, yet
 - Given weak Telco environment, strong execution with tangible results now required to convince markets to improve DT share price beyond current level
- 3) **DT NOT A "ONE TRICK" COMPANY - TMUS AS A HEDGE AGAINST EU REGULATION AND PRESSURE TO BUILD OUT FIBRE EVEN IF UNECONOMICAL**
 - US market remains more attractive than European portfolio markets offering strong organic growth opportunities
 - Plan A (deal with \$43bn synergies) and Plan B (standalone with share buyback) offer material US upside, but the market waits for regulatory outcome before putting money to work
- 4) **FMC IS POWERFUL - BUT RELEVANCE AND ABILITY TO PLAY DIFFERS ACROSS MARKETS**
 - FMC is powerful, but it manifests itself very differently across the world
 - The regulatory position is a key factor for FMC to play out and we allocate capital accordingly
- 5) **QUO VADIS PORTFOLIO: CONSISTENT CAPITAL ALLOCATION - "PREDICTING THE UNPREDICTABLE"**
 - We have delivered on our promises last year (M&A in US, AT, NL and FMC deals in CEE; further development of Towers, NL and DTCP)
 - BT remains challenged and may need to consider NetCo strategy
 - MNO NetCo spin-offs / Activists break-up play - The EU Telco fate? No quick "one size fits all" answer for all markets and assets
- 6) **WHAT KEEPS US BUSY IN 2018/19**
 - We stick to our M&A playbook - EU leading Telco (M&A reflecting sector risk requires patience)
 - Remain focused on closing US and NL deals
 - Stay ahead of the curve on sector trends like NetCo spin-offs and be prepared for Activism

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Page 1

1
2 UNITED STATES DISTRICT COURT
3 SOUTHERN DISTRICT OF NEW YORK

4 Case No.: 1:19-cv-05434 (VM)

5 - - - - - x
6)
7 STATE OF NEW YORK, STATE OF)
8 CALIFORNIA, STATE OF COLORADO,)
9 STATE OF CONNECTICUT, STATE OF)
COLUMBIA, STATE OF MARYLAND,)
STATE OF MICHIGAN, STATE OF)
MISSISSIPPI, COMMONWEALTH OF)
VIRGINIA, and STATE OF WISCONSIN)
Plaintiffs,)
-against-)
DEUTSCHE TELEKOM AG, T-MOBILE US)
INC., SPRINT CORPORATION and)
SOFTBANK GROUP CORP.,)
Defendants.)

14 - - - - - x
15 Friday, October 18, 2019
16 9:40:a.m.

17
18 VIDEO DEPOSITION OF HANNES WITTIG,
19 taken by Plaintiff State of New York, held at
20 Gibson, Dunn & Crutcher LLP, Telephone House
21 2-4, Temple Avenue, London EC4Y, United Kingdom
22 reported by Chanelle Malliff, Realtime Court
23 Reporter of the United Kingdom and Europe.
24
25

<p style="text-align: right;">Page 134</p> <p>1 HANNES WITTIG</p> <p>2 of that.</p> <p>3 BY MS. WESSELS-YEN:</p> <p>4 Q. Is that what you did when you were an analyst?</p> <p>5 MR. SOVEN: Objection.</p> <p>6 A. This is -- I think my bank wanted me to do that</p> <p>7 sometimes, so they can create business, but I didn't do it.</p> <p>8 I described -- as an analyst I was truthful and my</p> <p>9 motivation was not to -- he is a specialist. It's</p> <p>10 different. Specialists are on the sales side of the</p> <p>11 business.</p> <p>12 BY MS. WESSELS-YEN:</p> <p>13 Q. Let's go back and look at tab G for one -- oh, I'm</p> <p>14 sorry, I'm referencing tab G. Let's look at Exhibit 10 for</p> <p>15 a second please. You can tell it's getting to the middle of</p> <p>16 the afternoon.</p> <p>17 A. Going back to my friends at McKinsey.</p> <p>18 Q. Well, I had a follow-up question about that</p> <p>19 document actually. I think you testified earlier you</p> <p>20 thought that McKinsey had put the document together.</p> <p>21 A. That's my understanding, yeah.</p> <p>22 Q. What's that understanding based on?</p> <p>23 A. Well it was characterized at the time as a</p> <p>24 McKinsey workshop. I remember this. McKinsey participated</p> <p>25 in this workshop. They wouldn't participate in a workshop</p>	<p style="text-align: right;">Page 136</p> <p>1 HANNES WITTIG</p> <p>2 BY MS. WESSELS-YEN:</p> <p>3 Q. Is it possible that some of DT's colleagues could</p> <p>4 have added information to the document as well?</p> <p>5 MR. SOVEN: Objection to form.</p> <p>6 A. Generically possible. I think there are pages</p> <p>7 where DTAG is mentioned as a source, and there are many</p> <p>8 pages where DTAG is not mentioned as one of the sources. So</p> <p>9 I guess we should go by that. Because if it's this explicit</p> <p>10 mentioning of DTAG, and there is also other pages that do</p> <p>11 not mention it. And from what I can see it's -- but anyway,</p> <p>12 I don't know simply.</p> <p>13 BY MS. WESSELS-YEN:</p> <p>14 Q. DT has incorporated some of the material from this</p> <p>15 workshop PowerPoint into its own presentations to its board;</p> <p>16 correct?</p> <p>17 MR. SOVEN: Objection to form.</p> <p>18 A. I think some former seem to have been referenced</p> <p>19 in future research or presentations, that's correct, from</p> <p>20 what I can see, but I was not involved in that, neither in</p> <p>21 this presentation nor in other presentations I used any of</p> <p>22 this material. I personally never used any of this</p> <p>23 material.</p> <p>24 BY MS. WESSELS-YEN:</p> <p>25 Q. But if you put the page 17 of the workshop</p>
<p style="text-align: right;">Page 135</p> <p>1 HANNES WITTIG</p> <p>2 that they are not hosting. So my understanding was that</p> <p>3 it's a McKinsey-led presentation. And there are many</p> <p>4 participants of McKinsey on that list of people, so I think</p> <p>5 what I can see in front of me confirms my impression.</p> <p>6 I need to check again. For instance in that e-mail I say</p> <p>7 "McKinsey summary" at the end. That's Exhibit 11 anyway.</p> <p>8 But it's just what I remember.</p> <p>9 Q. Were you in any way involved with creating that</p> <p>10 document?</p> <p>11 A. No.</p> <p>12 Q. Were you involved with reviewing that document?</p> <p>13 A. No.</p> <p>14 Q. Is it possible that some of your DT colleagues</p> <p>15 could have created that document?</p> <p>16 MR. SOVEN: Objection to form.</p> <p>17 A. I don't know.</p> <p>18 BY MS. WESSELS-YEN:</p> <p>19 Q. Is it possible that some of them could have</p> <p>20 reviewed the document and made changes to it?</p> <p>21 MR. SOVEN: Objection to form.</p> <p>22 A. A McKinsey presentation usually asks for input</p> <p>23 from the company and then presents it as a view of McKinsey.</p> <p>24 That's what consultants do. I was a McKinsey consultant</p> <p>25 myself. That's what they do.</p>	<p style="text-align: right;">Page 137</p> <p>1 HANNES WITTIG</p> <p>2 PowerPoint next to page 25 of the board presentation they're</p> <p>3 substantially similar, aren't they?</p> <p>4 MR. SOVEN: Objection to form.</p> <p>5 A. I see what you are seeing and, as I said just now,</p> <p>6 it's possible that some of these pages were -- or it seems</p> <p>7 some of these pages were apparently, let's say, used as</p> <p>8 frameworks in future -- to structure future discussion. But</p> <p>9 that's all we can say. And I can't -- I didn't do it, so</p> <p>10 I don't know. But they look similar.</p> <p>11 BY MS. WESSELS-YEN:</p> <p>12 Q. Let's mark a new document.</p> <p>13 (Exhibit 14 marked for identification.)</p> <p>14 This is Wittig Exhibit 14, an e-mail chain with</p> <p>15 the beginning Bates number DT-DOJ-00031121 through 00031126.</p> <p>16 If you would please take a moment to review the</p> <p>17 e-mails, as well as the, at least the final page of the</p> <p>18 JPMorgan discussion, please, Mr. Wittig?</p> <p>19 A. Okay. There's obviously a lot in there so ...</p> <p>20 Q. Yes. Let's look first at the JPMorgan discussion</p> <p>21 and this is an e-mail from January 4, 2017 with a JPMorgan</p> <p>22 newsletter. If you could look at the final bullet point in</p> <p>23 that e-mail, the one that says:</p> <p>24 "If Sprint and T-Mobile merge, a much better MVNO</p> <p>25 rate could be the price of cable support for the deal."</p>

35 (Pages 134 - 137)